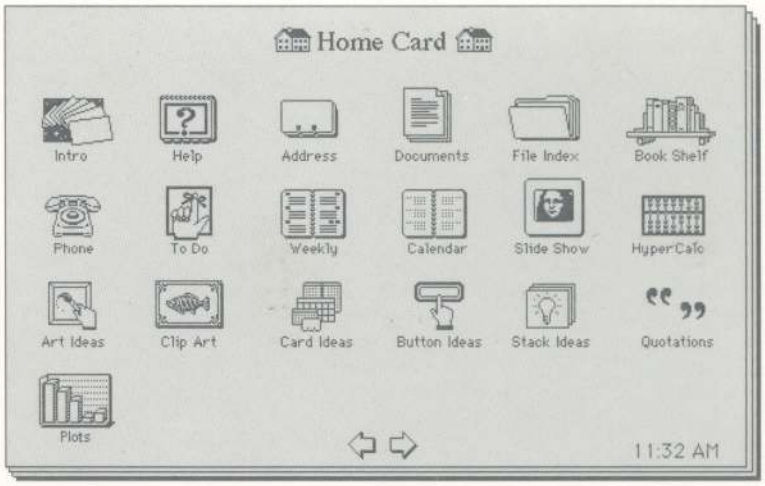
Macintosh® HyperCard®
User's Guide



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Preface

HYPERCARD® IS A NEW KIND OF SOFTWARE—A UNIQUE INFORMATION environment for your Apple® Macintosh® computer. Use it to look for and store information—words, charts, pictures, digitized photographs—about any subject that suits you. Any piece of information in HyperCard can connect to any other piece of information, so you can find out what you want to know in as much or as little detail as you need.

How to use this guide

This guide covers everything you need to know to use HyperCard (except writing your own instructions—or **scripts**—to HyperCard). Begin by reading Chapter 1 to determine what hardware, software, and experience you need. Then, to learn the basics of HyperCard, work through the tutorials in Chapters 2 and 3. The remainder of this guide can be used for reference. Use the table of contents and the index to locate instructions for specific tasks and commands.

The chapters and appendixes in this guide are described in detail below.

- Chapter 1, "Getting Ready," helps you prepare to use HyperCard. It explains what you need to use HyperCard and gives instructions for installing HyperCard on a hard disk.
- Chapter 2, "Browsing and Editing," is a tutorial on getting around in HyperCard. It teaches you how to use some of HyperCard's most important features.
- Chapter 3, "Customizing," presents two more tutorials. These tutorials teach you how to customize HyperCard documents (called stacks) for your own use.
- Chapter 4, "Home," gives details about this all-important HyperCard stack.
- Chapter 5, "Text in HyperCard," provides information on HyperCard fields (the places you create to hold text), how to enter text into those fields, and how to control text styles.
- Chapter 6, "Graphics in HyperCard," pulls together HyperCard's graphic elements and suggests ways to use various HyperCard tools and commands to produce finished pictures.
- Chapter 7, "Menu Commands," gives detailed descriptions of every HyperCard menu command. This chapter also includes step-by-step instructions for carrying out HyperCard's most common procedures.
- Chapter 8, "Keyboard Commands," summarizes all the HyperCard commands and features that you can execute directly from the keyboard.
- Appendix A, "Common HyperCard Messages," lists the most common instructions you send to HyperCard using a feature called the Message box. (This appendix is for advanced HyperCard users.)

- Appendix B, "HyperCard Disks," gives a listing of the documents and other files on each of the disks that comes with HyperCard.
- Appendix C, "Using HyperCard Without a Hard Disk," gives instructions for building the startup disk you need to use HyperCard with 800K disk drives. This appendix also explains the special requirements and considerations for using HyperCard without a hard disk.

Conventions used in this guide

Several special elements in this manual's text are designed to make learning easier.

Additional information and helpful hints are presented in notes like the one below:

❖ *By the way:* A note like this presents additional information or interesting sidelights.

Important information that you'll need to know is presented as follows:

△ **Important** Be sure to read everything that's labeled this way. △

Critical information is presented in Warning notes. These notes warn you about situations in which you can lose valuable data or damage software:

▲ **Warning** Warnings like this alert you to situations where you could damage software or lose data. ▲

Terms in **boldface type** are defined in the glossary.

In the tutorial chapters, Chapters 2 and 3, a special red symbol indicates procedures that you should follow:

▶ This symbol indicates procedures you should perform in the tutorial.

Throughout this manual, numbered steps in boldface type give step-by-step instructions for a procedure.

A special typeface indicates characters that you should type:

```
It looks like this.
```

Getting help in HyperCard

While you're working with HyperCard, you have two primary sources of help and information—this user's guide and HyperCard's on-line Help system. (**On-line help** is assistance you can get from a software program while it's running.) Although both of these sources provide a lot of information about HyperCard and cover the same topics, they give different kinds of help:

- This guide gives more detail than HyperCard's on-line Help system. Turn to this guide when you need an in-depth discussion of a topic. To find information quickly, look up the subject or command in the index or table of contents.
- On-line Help provides immediate assistance presented on your computer's screen and gives a brief discussion of each topic. You get to the information you need by clicking buttons and by doing electronic searches. You can use on-line Help when you've forgotten some procedure you read about in this book, or when you want a quick overview of a feature that's unfamiliar to you. On-line Help uses HyperCard's features to explain HyperCard, and stands as an example of what HyperCard can do.

❖ *If you're using HyperCard without a hard disk:* You'll have to do some disk swapping to use HyperCard's on-line Help system. (See Appendix C for instructions on using Help without a hard disk.) You may find it's faster and easier to use this guide to get the information and help you need.

Where to get HyperCard stacks

Stacks are collections of information created by and used with HyperCard. (See Chapters 2, 3, and 4 for examples of HyperCard stacks and their use.) You can create stacks yourself, or you can get them from a variety of sources, including the following:

- You'll find HyperCard stacks for sale at your local computer software store.
- Check with your local Macintosh user group to find out the meeting time of the HyperCard special interest group. Members often exchange member-created stacks with each other.
- Most on-line electronic information services like CompuServe and GEnie have Macintosh special interest groups. These groups have stacks you can get free, except for the service's time charges.

User groups

Macintosh user groups can be a great source of information about HyperCard, and about Macintosh in general. Members of user groups meet to share ideas, discuss problems, and exchange software and information. By attending user group meetings, you can learn more about HyperCard and see how others are using it.

Ask your dealer for the name of a Macintosh user group near you. If you live in the United States, you can call 1-800-538-9696 for the name, address, and telephone number of up to three Macintosh user groups in your geographic area. You can also get information about user groups from:

The Boston Computer Society
One Center Plaza
Boston, Massachusetts 02108
(617) 367-8080

or

Berkeley Macintosh User Group
1442-A Walnut Street #62
Berkeley, California 94709
(415) 849-9114

Either of these organizations can provide you with the name of a Macintosh user group near you. You can also join either of these groups or ask them for information on starting your own Macintosh user group.

Outside the United States, ask your dealer for information on user groups, or contact either of the organizations listed above.

Additional documentation

This guide covers everything you need to know to use HyperCard effectively up to (but not including) the scripting level. **Scripts** are programs that control the actions of HyperCard objects. See the *HyperTalk Beginner's Guide: An Introduction to Scripting* (included with HyperCard) for an introduction to scripting and a tutorial on HyperTalk™, HyperCard's scripting language.

For detailed reference information about scripts and HyperTalk, see the *HyperCard Script Language Guide: The HyperTalk Language,* available from Addison-Wesley Publishing Company. Several other excellent books have been written about HyperTalk; check with your favorite bookseller to see what books are currently available.

CHAPTER 1

Getting Ready

THIS CHAPTER HELPS YOU PREPARE TO USE HYPERCARD® SOFTWARE. IT explains what you need to use HyperCard and gives instructions for installing HyperCard on a hard disk.

What you need to use HyperCard

HyperCard works in any Apple Macintosh computer with 1 megabyte of memory or more, and either two 800K disk drives or one 800K disk drive and a hard disk. If you use HyperCard with two 800K disk drives (and no hard disk), you'll encounter special problems and limitations (explained in Appendix C, "Using HyperCard Without a Hard Disk"). HyperCard works best in systems with at least one 800K disk drive and a hard disk drive.

- *HyperCard and MultiFinder:* To get the most out of your system when you're using HyperCard and any other application under MultiFinder™, your system should have at least 2 megabytes of memory. Your authorized Apple dealer can quickly upgrade your system with the necessary extra memory.

About system software

HyperCard works under System files with the version numbers in Table 1-1 (or higher version numbers).

■ **Table 1-1** System file versions

Computer	System	Finder
Macintosh Plus	System 4.1	Finder 5.5
Macintosh SE	System 4.1	Finder 5.5
Macintosh II	System 4.1	Finder 5.5
Macintosh IIx	System 6.0.2	Finder 6.0.2
Macintosh IIcx	System 6.0.2	Finder 6.0.2
Macintosh SE/30	System 6.0.3	Finder 6.0.3

To find out the version of the System file on your startup disk, look in the System file Get Info box.

- *LaserWriter users take note:* To use a LaserWriter® printer with HyperCard, you must be using LaserWriter printer resource version 4.0 (or a version with a higher number).

What you need to know

This guide assumes that you've already mastered the basics of your Macintosh. Before you use HyperCard, you should know how to:

- use the mouse
- initialize a 3.5-inch disk
- copy files and disks
- open disks, folders, applications, and documents
- do simple editing
- work with the Finder
- use the directory dialog box to locate files

If these are unfamiliar tasks, consult the *Macintosh System Software User's Guide*, the *Macintosh Utilities User's Guide*, or your Macintosh owner's guide for instructions.

What comes with HyperCard

Besides this manual, your HyperCard package should contain the manual *HyperTalk Beginner's Guide: An Introduction to Scripting* (a HyperTalk tutorial) and three disks, named as follows:

- *HyperCard and Stacks*
- *HyperCard Help*
- *HyperCard Ideas*

In the unlikely event that anything is missing, contact your dealer immediately for a replacement.

For a list of the stacks and other files on each disk, see Appendix B, "HyperCard Disks."

Copy your disks

Before you do anything else, make copies of all the HyperCard disks to use as your working disks. Then put the originals away in a safe place. (You'll find instructions for copying disks in the *Macintosh System Software User's Guide* or your Macintosh owner's guide.)

HyperCard is an inviting program to use and to experiment with. HyperCard documents are extremely easy to change—any changes you make to a HyperCard document are saved automatically, as soon as you make them. You might want to use your original HyperCard documents to replace a document you've experimented with; so it's important that you keep a set of these documents in their unaltered states.

- ▶ If you're using HyperCard with a hard disk, proceed to the next section, "Installing HyperCard on a Hard Disk."

- ▶ If you're using HyperCard with two 800K disk drives (and no hard disk), skip the next section and proceed to the section "Using HyperCard Without a Hard Disk," later in this chapter.

Installing HyperCard on a hard disk

This section assumes that you're using HyperCard with a hard disk and that your hard disk is already set up. If it isn't set up yet, see the *Macintosh Utilities User's Guide* that came with your computer and your hard disk owner's manual for instructions.

To install HyperCard on a hard disk system, you simply copy all the files from all the HyperCard disks to your hard disk. The instructions below explain how to copy the HyperCard files to your hard disk.

- ▶ First, copy the files from the *HyperCard and Stacks* disk onto your hard disk:

1. **Start your computer.**

2. **After the Finder desktop appears, insert the disk labeled *HyperCard and Stacks* into your computer's built-in 800K disk drive.**

   If you have two 800K disk drives (in addition to your hard disk), you can use either drive.

HyperCard and Stacks

3. **Open the HyperCard and Stacks disk icon.**

   To open the disk icon, click to select it and choose Open from the File menu. Double-clicking the disk icon also opens it.

4. **Choose Select All from the Edit menu to select all the files on the disk HyperCard and Stacks.**

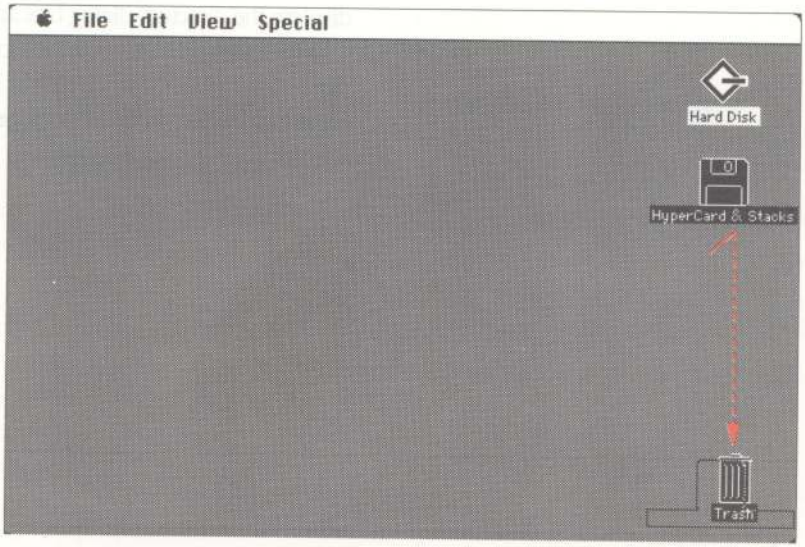
5. **Copy all the files by dragging them to your hard disk icon, or to the directory window of your hard disk.**

   If you don't know how to drag files to a disk, see the *Macintosh System Software User's Guide* or the owner's guide that came with your computer.

6. **Eject the *HyperCard and Stacks* disk by dragging its icon to the Trash.**

   Dragging a disk to the Trash does not erase the disk; it ejects the disk and removes its icon from the desktop.

Figure 1-1 Ejecting a disk



▶ Copy the HyperCard Help files onto your hard disk:

1. **Insert the disk labeled *HyperCard Help* into your computer's built-in disk drive.**

2. **Open the HyperCard Help disk icon.**

3. **Copy the Help Stacks folder and its contents by dragging the folder's icon to your hard disk icon or to the directory window of your hard disk.**

4. **Eject the *HyperCard Help* disk by dragging its icon to the Trash.**

▶ Copy the files from the HyperCard Ideas disk onto your hard disk:

1. **Insert the disk labeled *HyperCard Ideas* into your computer's built-in disk drive.**

2. **Open the HyperCard Ideas disk icon.**

3. **Copy the Idea Stacks folder and its contents by dragging the folder's icon to your hard disk icon or to the directory window of your hard disk.**

4. **Eject the *HyperCard Ideas* disk by dragging its icon to the Trash.**

HyperCard is now installed on your hard disk and ready to go.

❖ *Where's the document?* If HyperCard can't find a particular document, it displays the directory dialog box and asks where to find the document. (The techniques for using the directory dialog box are given in the *Macintosh Utilities User's Guide* or in your owner's guide.) You have to tell HyperCard where to find a document only once; it will know where to look after that.

Using HyperCard with MultiFinder

MultiFinder is an operating system for the Macintosh that makes it possible to have several applications open at the same time. MultiFinder comes with Macintosh system software version 5.0 and versions with higher numbers. (See the *MultiFinder User's Guide* or the *Macintosh System Software User's Guide* for information about MultiFinder.)

To use HyperCard under MultiFinder, your system should have at least 2 megabytes of memory. If you're using HyperCard with MultiFinder, you can change the amount of memory set aside for HyperCard before you begin (as explained in the steps below). Normally, HyperCard is allotted 1000K of memory—unless you change the memory allotment. HyperCard works well with MultiFinder when HyperCard is allotted 1000K of memory or more. If you set aside less than 700K of memory for HyperCard, scripts using Paint tools won't work and you won't be able to paste graphics. (Other unexpected problems may also occur.)

If you want to change the memory allotted for HyperCard to use, follow these steps:

1. **In MultiFinder, click to select the icon for HyperCard.**

2. **Choose Get Info from the File menu.**

3. **Double-click to select the number in the box labeled Application Memory Size.**

4. **Type any number higher than 699.**

   HyperCard works best when the number in this box is 1000 or higher.

5. **Click the close box.**

Using HyperCard without a hard disk

HyperCard and the stacks that come with it require a lot of disk space. When you use HyperCard with 800K disk drives (and no hard disk), you'll be affected by the limited disk space in a number of ways. The special considerations, requirements, and procedures for using HyperCard without a hard disk are explained in Appendix C.

▶ If you're using HyperCard without a hard disk, proceed as follows:

1. **First go to Appendix C and follow the instructions there in the section "Creating a 3.5-Inch Startup Disk" to create the startup disk you need to run HyperCard.**
2. **If you're using HyperCard with MultiFinder, read the section "Using HyperCard with MultiFinder," earlier in this chapter.**
3. **When you're ready to begin the HyperCard tutorials, go on to Chapter 2.**

CHAPTER 2

Browsing and Editing

THIS CHAPTER TEACHES YOU HYPERCARD BASICS. IT COVERS THINGS everyone must know to use HyperCard. You'll learn how to:

- use some important HyperCard documents (called **stacks**)
- look through HyperCard stacks
- search for information
- edit text on **cards** (HyperCard's basic unit of information)
- create places to hold new information

Getting the most from the tutorials

Throughout this chapter and Chapter 3, you'll see sentences that begin with the red symbol ▶. This symbol marks actions for you to take to gain experience with HyperCard. Follow any numbered steps in order.

Getting started

Before you can start your tutorials, you need to get HyperCard up and running.

△ Important Make sure your Home stack is either in the same folder as HyperCard, or in the HyperCard Stacks folder. Otherwise, you'll have to specify where it is each time you start HyperCard. △

▶ To start HyperCard from a hard disk, select and open the HyperCard icon.

Click the HyperCard icon to select it. Then choose Open from the File menu. (You can also double-click the icon to open it.)

▶ If you're using HyperCard with 800K disk drives (and no hard disk):

1. **Start the computer.**

   If the computer is already on, choose Restart from the Special menu. (If you don't have Restart, choose Shut Down.)

2. **Put a copy of your HyperCard Startup disk into the internal drive.**

   See Appendix C for instructions on how to create this disk.

△ Important Although you can use HyperCard with a locked disk (or a locked volume), changes you make to stacks on a locked disk won't be saved. If you want your changes saved, make sure that any disk you use is unlocked. △

3. **Put a copy of the *HyperCard and Stacks* disk into the other drive.**

4. **When the Finder desktop appears, double-click the HyperCard icon (in the HyperCard and Stacks window) to open it.**

   You see the screen in Figure 2-1.

Figure 2-1 Starting HyperCard

What is HyperCard?

HyperCard is an information toolkit. You can use HyperCard to gather, organize, present, search, and customize information.

In HyperCard, you can link together related information so that a single mouse click takes you to just the information you want to see—you can define the relationships between pieces of information.

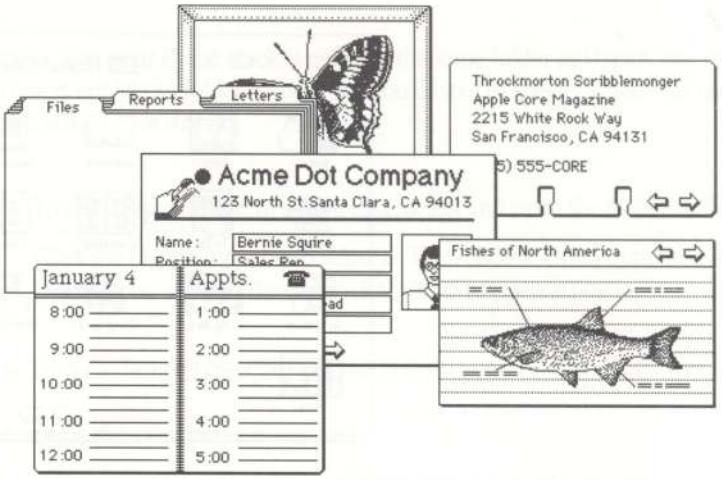
You can also use HyperCard to access information assembled by others, and add your own information to what's already there.

Some definitions

Before you start to explore HyperCard, you'll need to know a few terms—specifically **card, stack, tool, browsing,** and **button.**

In HyperCard, information appears on **cards**. On a Macintosh Plus or SE, a card fills the entire screen. On larger-screen Macintoshes (like the Macintosh II) and on larger monitors, a card appears in a window—you have some extra room on the edges. Cards can have both text and pictures. What you see on the screen now is a card; Figure 2-2 shows some others.

Figure 2-2 Some cards—HyperCard's fundamental units of information



Stack icon

A named collection of cards is called a **stack**. Cards in a stack are usually (but not necessarily) based on the same theme—they usually share the same look and contain similar information. An icon for each stack appears in the Finder.

▶ Move the mouse around.

Browse tool

HyperCard has many tools that you use to look for and to create information. The little hand you see moving around when you move the mouse is the **Browse tool**. The Browse tool is the tool you'll use most often.

Browsing is HyperCard's term for moving through cards and stacks.

You can browse through cards—within the same stack or among different stacks—by clicking **buttons** with the Browse tool. By clicking buttons, you can also do a lot more than go to other cards and stacks—you can dial a phone, keep track of money, learn a new subject, or even control a video disk player.

Letting HyperCard teach you

You can learn a lot about HyperCard just by using it.

You can begin to learn more about HyperCard by going through the on-line Introduction. (**On-line** means presented on the screen by the computer, as opposed to presented by this user's guide.) Go through the on-line introduction now.

▶ To start the on-line introduction from a hard disk, move the mouse until the Browse tool is on the Intro icon (it's near the screen's upper-left corner), and then click.

The card in Figure 2-3 appears.

▶ If you're using HyperCard with 800K disk drives (and no hard disk):

1. **Move the mouse until the Browse tool is on the Intro icon (near the screen's upper-left corner), and then click.**

   The directory dialog box appears and asks where the Help stack is.

2. **Click the Drive button until you see the name of your startup disk above the Eject button.**

3. **Click Eject to eject the startup disk. Insert the HyperCard Help disk into the disk drive.**

4. **Insert the *HyperCard Help* disk into the disk drive.**

5. **Double-click the Help Stacks folder in the directory dialog box to open it.**

6. **Double-click the Help stack in the directory dialog box to open it.**

After you do this, your Macintosh ejects the *HyperCard Help* disk and prompts you to insert the startup disk. Follow the instructions you see on the screen. (You might have to repeat this process once or twice. Just keep following the instructions on the screen.)

The card in Figure 2-3 appears.

Figure 2-3 The first card of the on-line introduction

Previous card arrow

▶ Click the button labeled "What is HyperCard?"

During the introduction you might want to review a card you've already seen. To do that, click the left-arrow button to go back through the Introduction stack one card at a time.

❖ *You can always go back:* Another way to see the previous card is to press the Tilde key. Stacks in HyperCard often link to each other (a concept you'll learn more about later). While the left arrow brings you to the previous card in the stack you're looking at, the Tilde key brings you to the last card you saw, no matter what stack it was in.

- When you get to the card titled "What Next?" (about 15 cards after the start of the on-line introduction), click "Home to explore on my own"; then come back to this guide and continue reading.

  If you're using HyperCard with 800K disk drives (and no hard disk), turn off your computer when you're finished with the on-line Introduction. Then restart the computer using a copy of your HyperCard Startup disk, as described in "Getting Started," earlier in this chapter. Otherwise, you may have to go through a lengthy succession of screen prompts asking you to insert different disks in the disk drive.

Home

When you start HyperCard, you see the **Home card.** You'll see Home more than any other card. Home is your base of operations, the jumping-off point for your explorations in HyperCard.

Figure 2-4 The Home card

Go menu

The Home card, first card in the Home stack, is a visual directory for your most important cards and stacks. Clicking one of the pictures here brings you to the card that the picture represents. (Each picture is actually a button.) In Chapter 3, you'll learn how to add to the Home card pictures representing your own cards and stacks.

To get back to Home at any time, choose Home from the Go menu.

❖ *About the Go menu:* The Go menu is HyperCard's navigation panel. You can use it to go from one card to another within a stack, to trace your way back through cards and stacks you've already seen, and to get help whenever you need it. In the early stages of working with HyperCard, you're likely to use the Go menu more than you'll use any other menu.

Address

In a few moments you'll use the Home card to move to the Address stack. The Address stack is your personal telephone directory.

As you learn how to use the Address stack, you'll pick up a valuable HyperCard skill—how to look for information by searching for specific text rather than browsing from card to card.

Using the Address stack

The Address stack holds addresses and phone numbers. You look for a specific name, address, or phone number using the Message box.

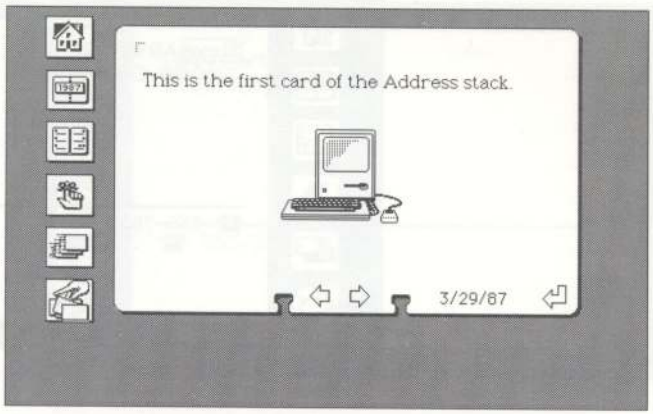
▶ Open the Address stack and look for a name:

HyperCard comes with some sample Address cards; in this exercise, you'll look for a card with the name Steve on it.

1. **Click the button that looks like an address card.**

   The card in Figure 2-5 appears.

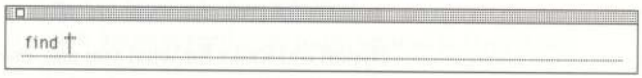
Figure 2-5 The first card in the Address stack



2. Choose Find from the Go menu.

The Message box appears near the bottom of the screen. (See Figure 2-6.) The insertion point is positioned between the quotation marks for you.

Figure 2-6 The Message box



3. Type `Steve` **and press Return.**

(You have to type between the quotation marks for Find to work.) The card in Figure 2-7 appears.

Figure 2-7 Finding a card

- *"It beeped at me!"* If the Macintosh sounds a beep, reset the Message box by choosing Find from the Go menu and once again type what you want to search for. HyperCard beeps to let you know it can't find what you ask for. Sometimes this means that you spelled something incorrectly, and sometimes it means that what you asked for isn't in the stack.

HyperCard looks for the first card with text that starts with what you typed, and puts a box around the word. Pressing Return again makes HyperCard look for the next card with Steve on it.

▶ Look for part of a word or name:

HyperCard looks for what you ask, even if what you type is part of another word. You can see this work if you type ST in the Message box.

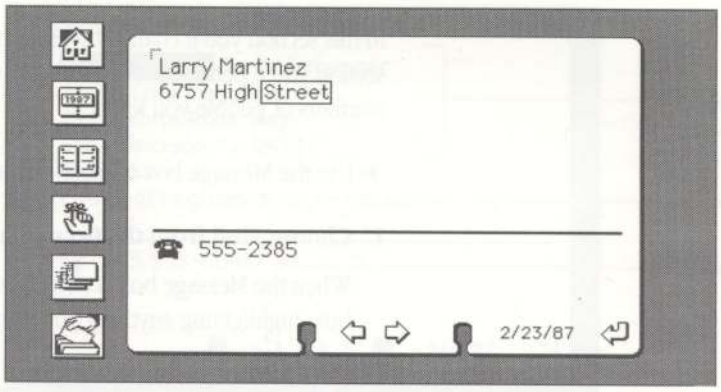
1. **Reset the Message box by choosing Find from the Go menu again.**

   Each time you choose Find, HyperCard highlights any old text between quotation marks. The highlighted text will be replaced by any new text you type.

2. **Type** `ST` **into the Message box and press Return.**

   Press Return a few more times, and see the results you get.

Figure 2-8 Finding other words that start with ST



You can learn more about searching later by reading the section called "Find" in Chapter 7.

A quick browse/search recap

Find is another new way for you to get around in HyperCard. It's different from the other ways in that it's more specific—you have to know what words you want to find in order to use it.

You now know several ways to get around in HyperCard:

- click buttons with the Browse tool
- choose from the Go menu
- search for a specific word using the Message box

Changing text

In this section you'll change the information on one of the cards. (In the next section you'll personalize the Address stack by putting in the names and phone numbers of people you know.)

▶ Use the Message box to reach a card; then change the card:

1. **Choose Find from the Go menu.**

   When the Message box is already visible, choosing Find resets the Message box, highlighting anything you've typed between quotation marks.

2. **Type** `Scribble` **and press Return.**

   HyperCard looks for a card with the word "Scribble" on it. (Figure 2-9 shows the card.)

3. **Select the name Throckmorton by dragging across it.**

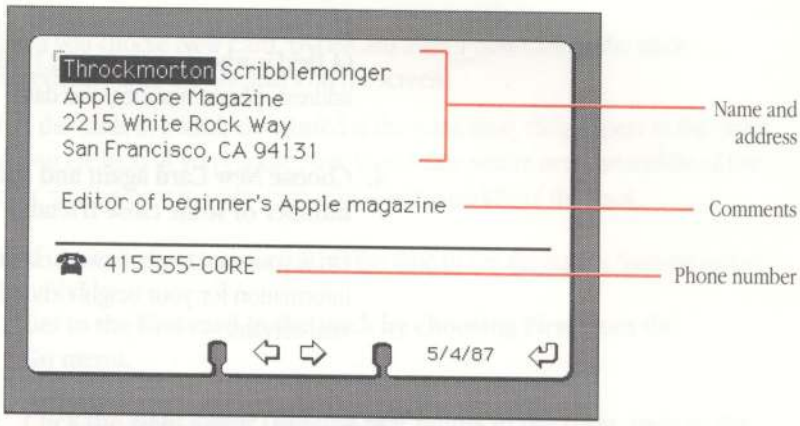
   Dragging is a standard Macintosh technique that you're probably already familiar with: Position the I-beam pointer at the beginning of the word. Press and hold the mouse button while you "drag" the pointer across the word. Release the mouse button at the end of the word. If you've done this successfully, Throckmorton is highlighted.

4. **Type the name** `John`**.**

   The new name replaces the old one.

5. **Close the Message box.**

Figure 2-9 Changing an address card



You can select any text (except Paint text, described in Chapter 7) by dragging. Then type new text to replace it.

For more details on editing text, see the section "Edit Menu" in Chapter 7.

Adding a card

You can personalize all the cards in the Address stack by editing out the old text and adding new text. However, you'll probably find it easier to create new cards to hold your information. You add a card to any HyperCard stack by choosing New Card from the Edit menu.

▶ Add a new card to the Address stack:

1. **Choose New Card from the Edit menu.**

   A new card appears, ready for you to add your own information. (See Figure 2-10.)

2. **Type your name and address.**

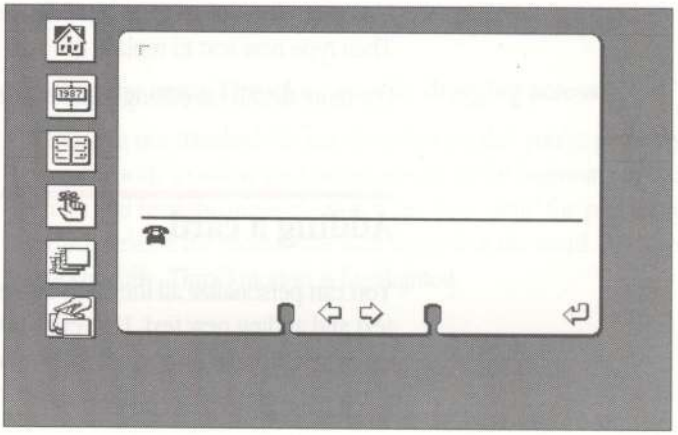
3. **Press the Tab key to move the insertion point to the phone number line, and type your phone number.**

   The Tab key moves you from field to field on a card in the Address stack. (A field is where you type text.) This card has three fields—name and address, phone number, and date.

4. **Choose New Card again and add the name, address, and phone number of some close friend.**

   Or, if you want to get down to business right away, type in contact information for your neighborhood pizza delivery restaurant or some other vital service.

Figure 2-10 A new address card



Continue to add cards if you want. When you've finished, go on to learn about how cards are arranged in a stack.

- *Don't worry about alphabetical order:* You can create a new card wherever you want in the stack. In a few moments, you'll alphabetize the stack with the click of a button.

How cards are arranged in a stack

When you choose New Card, HyperCard adds a new card to the stack immediately after the one that's on the screen.

If all the cards in a stack are created at the same time, they appear in the order of their creation. If you choose New Card while you're near the middle of the stack, that's where the new card goes—in the middle of the stack.

▶ Go through the stack one card at the time to see the stack's "natural order":

1. **Get to the first card in the stack by choosing First from the Go menu.**

Next card arrow

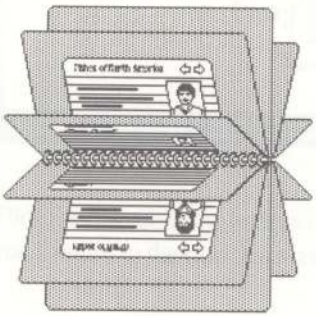
2. **Click the right arrow (the one that points to the right, next to the left arrow) to move through the stack, one card at a time.**

   Eventually you'll come to the new cards you created. (Most cards in the stack are alphabetized; your cards will probably be out of order.)

3. **Keep clicking the right arrow until you come back to the first card in the stack.**

   Think of the cards in a stack as being looped on a ring; when you reach the end, you start over again. (See Figure 2-11.)

Figure 2-11 Cards ringed in a stack

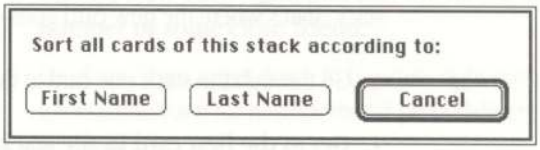


Sort Button

4. Sort the stack by clicking the Sort button (shown at the left).

A dialog box appears with buttons for sorting by first name or last name. (See Figure 2-12.)

Figure 2-12 The Sort dialog box



5. Choose Last Name to sort alphabetically by last name.

The pointer turns into a beach ball; it spins while HyperCard completes the sort.

Quick View button

6. Go through the stack quickly by clicking the Quick View button.

(Click the mouse to stop the display.) You'll see the new cards you added sorted into their proper alphabetical place.

❖ *Getting rid of unwanted cards:* The Address stack comes with a number of sample cards. You can eliminate the cards you don't want: move to an unwanted card and choose Delete Card from the Edit menu.

Δ Important You don't have to save your changes; HyperCard does it for you automatically. As a result, there is no Save command in HyperCard. You'll read more about this in Chapter 7. Δ

Exploring the Help stack

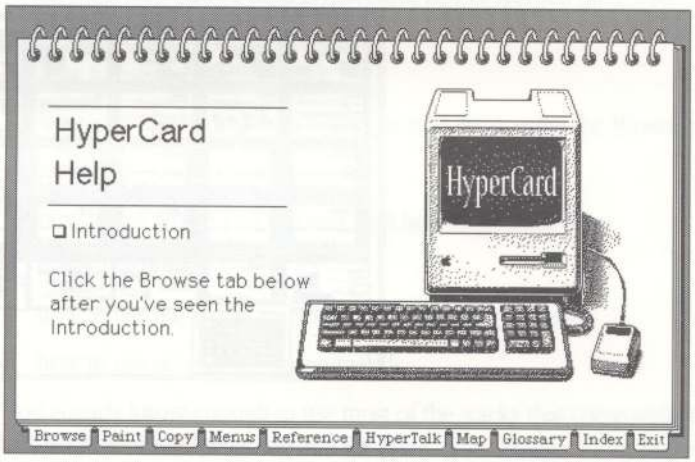
▶ When you want to explore the Help stack, choose Help from the Go menu. You see the card shown in Figure 2-13.

The Help stack briefly explains all of HyperCard's features. It's a useful information source and an excellent example of the kinds of things you can do with HyperCard.

To use the Help stack, click one of the tabs along the card's bottom. (Each tab is actually a button.)

❖ *If you're using HyperCard without a hard disk:* You'll have to do some disk swapping to use the Help stack. Appendix C gives instructions for using on-line help without a hard disk.

Figure 2-13 The Help stack's first card



Click the Exit tab at the bottom of a card when you've finished using Help; you'll return to the card that was on the screen when you chose Help.

Recent: Seeing where you've been

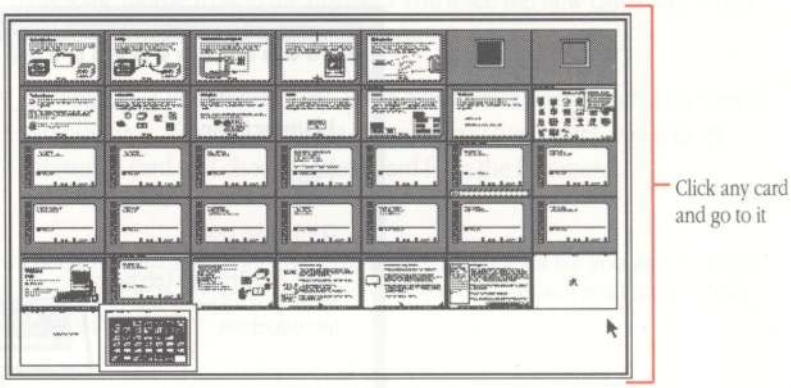
When you used the Address stack, you saw how cards are arranged in a stack—one after the other in a loop, as if they're held together by a ring. You clicked the left and right arrows to move from card to card.

When you chose Help from the Go menu to get to the Help stack, and later when you pressed the Exit button to come back to the Address stack, you saw that you can move between stacks as easily as you move between cards.

As you go from card to card and stack to stack, HyperCard automatically keeps a record of where you've been. The Recent command shows (in miniature) up to the last 42 cards you looked at. Choose Recent when you need to retrace your steps.

▶ Choose Recent from the Go menu.

Figure 2-14 Recent card



A stack might have hundreds of cards in it, but if you've looked at only three cards in that stack, Recent shows only the three cards you looked at.

You can go directly back to any card represented in miniature in Recent. Try it now.

▶ Go directly to a card shown on Recent:

1. **Click any card's miniature picture.**

   (Each picture is actually a button.) You immediately go to that card.

2. **Choose Recent again on the Go menu.**

   A rectangle encloses the image of the card you went back to.

3. **Click the image of the card you were on when you first chose Recent.**

What you've learned so far

In the short time you've used HyperCard, you've learned quite a lot. Among other things, you know:

- how to use the Address stack
- how to get from card to card and stack to stack using the Browse tool
- how cards are arranged in a stack
- how to see where you've been, and how to go back there
- how to search for text
- how to use the Home card as your base of operations
- how to use several menu commands

You already know enough to use most of the stacks that come with HyperCard and that are available for sale and for trade. (See "Where to Get HyperCard Stacks," in the Preface, for some specific places to get more stacks.) Most stacks that require further instructions have a card or two telling you what you need to know.

How to get there from here

Here's a quick summary of the ways you've seen so far to find your way around HyperCard. They all come in handy at one time or another.

Browse tool	Click buttons with it to move to other cards.
Home	Choose Home from the Go menu to reach this graphic directory of stacks; then click the button for the stack you want to go to.
Recent	Choose Recent from the Go menu for a pictorial summary of cards you've seen; then click the picture of the card you want to go to.
First	Choose First from the Go menu to get to the first card in a stack.
Last	Choose Last from the Go menu to get to the last card in a stack.
Find	Choose Find from the Go menu; then type what you want to find and press Return.

❖ *Not sure where the buttons are?* Hold down the Command and Option keys at the same time, and HyperCard lets you peek at buttons on a card.

What to do next

You can continue to work with the Address stack; you can go on to explore other stacks (Appendix B has a descriptive list of all the stacks that come with HyperCard); or you can go on to Chapter 3 for tutorials on customizing stacks to your own liking.

To explore more stacks or to go on to Chapter 3, be sure to start from the Home card.

▶ Go back to the Home card.

You go back to the Home card by choosing Home from the Go menu. (You'll learn more about the Home card in Chapter 4.)

❖ *Another way to get Home:* Anytime you see a picture of a house on a card, you can click the house to go to the Home card.

CHAPTER 3

Customizing

SOMETIMES THE WAY A STACK LOOKS ISN'T TO YOUR LIKING. THE PICTURE YOU see on a particular card isn't suited to your purposes, or a field is in an inconvenient place or its text is in a font or style that you don't like. This chapter shows you how to use HyperCard's features to customize cards and stacks.

Customizing isn't required. You don't have to customize a stack to use it. These tutorials are for people who enjoy modifying things to meet their specific tastes. It's OK to leave stacks as they are.

This chapter has two tutorials. The first, "Painting," goes over some of HyperCard's features for editing pictures. You'll learn how to:

- copy pictures from one card to another
- edit the pictures you copy
- create new pictures using HyperCard's painting tools

The second tutorial, "Authoring," includes the basic elements of stack creation. You'll learn how to:

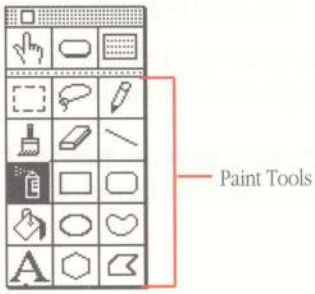
- create new stacks
- copy pictures, buttons, and fields from existing stacks to your new stack
- move buttons around on a card

The tutorials are separate. If you aren't interested in authoring yet, just do the Painting tutorial and go on to explore HyperCard.

Painting

HyperCard provides a variety of tools for changing the way a card looks. Chief among these are the Paint tools; you use them to create and to change pictures.

Figure 3-1 The Tools menu



Setting the user level to see the Tools menu

You choose the tool you need from the Tools menu. To see the Tools menu, you must tell HyperCard you're ready to use it. (HyperCard keeps menus out of sight until you need them.)

You tell HyperCard that you're ready to work with new tools by changing your **user level** on the User Preferences card. It's the last card in the Home stack.

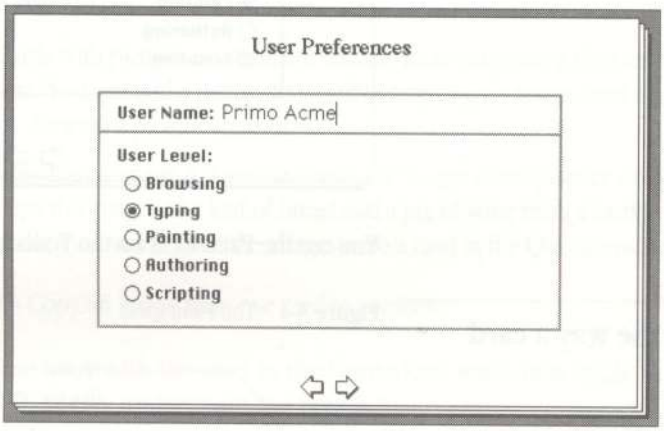
▶ Move to the User Preferences card of the Home stack:

1. **Start from the Home card.**

2. **Choose Last from the Go menu.**

   The Last command brings you to the last card of the current stack. The User Preferences card appears. (See Figure 3-2.)

Figure 3-2 The User Preferences card



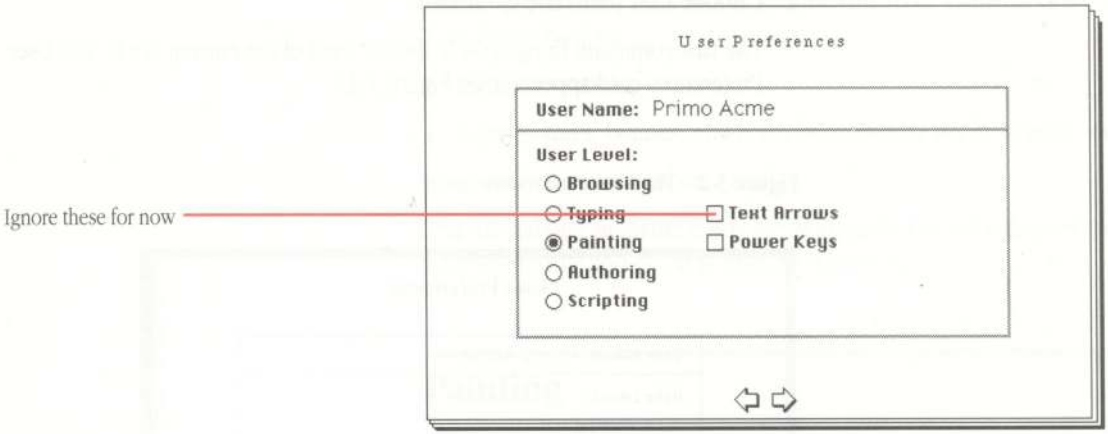
HyperCard has five user levels. Each level incorporates everything from previous levels, and adds new capabilities. When you first start HyperCard, you're at the Typing level. At this level you can move through HyperCard's stacks and search for information, and you can make changes to text.

Now you need to be able to use the Paint tools—a capability that comes with the next level.

▶ Click the button labeled Painting.

(HyperCard stays at your new level until you change it, even if you quit HyperCard and restart.) A new menu appears in the menu bar.

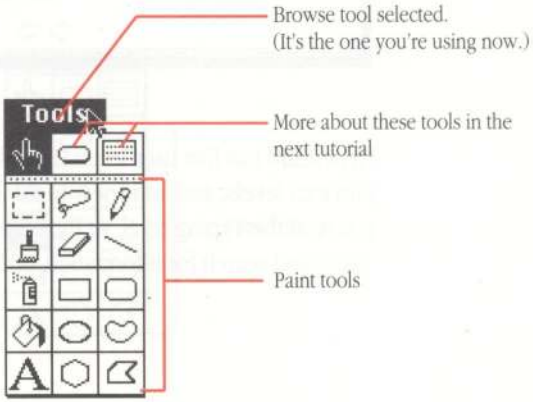
Figure 3-3 Changing user levels



You use the Paint tools on the Tools menu to change a card's picture.

Changing the way a card looks

Figure 3-4 The Paint tools



HyperCard comes with a stack specifically included for you to practice your painting on, the Quotations stack. You'll go to this stack using a command that's new to you—the Open Stack command.

▶ Get to the Quotations stack:

1. **Choose Open Stack from the File menu.**

   A directory dialog box appears, letting you select the stack you want to work with.

2. **Select Quotations and click Open.**

❖ *A quick diversion:* The Quotations stack is a collection of aphorisms and famous sayings. Guess the author of the quotation; then click the "Who says?" button to see if you were right. (Click it again to hide the answer.) When you want to stop the game (or you run out of quotations), come back here.

Copying a picture from another card

Cards with pictures on them are visually more interesting than cards with just text. You can add a picture to a card by copying an image from another card, or by drawing a picture yourself.

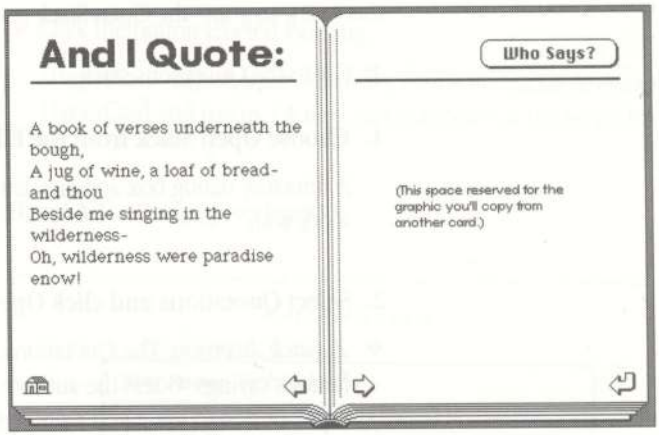
Copying an image is a simple operation. To get some practice doing it, you'll copy the images of a loaf of bread and a jug of wine from a card in the Art Ideas stack; then you'll paste the images onto a card in the Quotations stack.

▶ Copy an image from one card to another:

1. **Start with the card in the Quotations stack that reads "A book of verses underneath the bough."**

   To find it, Choose Find from the Go menu, type `book of verses`, and press Return. Your next step is to go to the Art Ideas stack to copy pictures.

Figure 3-5 Book of verses card



2. **Choose Open Stack from the File menu.**

   The directory dialog box appears so that you can choose the stack you want to open. The Art Ideas stack is in the Idea Stacks folder. Use the directory dialog box to locate the Art Ideas stack.

   If you're using HyperCard with 800K disk drives (and no hard disk), you'll have to click the Drive button in the directory dialog box to find the Art Ideas stack.

3. **Select Art Ideas and click Open.**

   You're now at the first card of the Art Ideas stack.

4. **Move to the card labeled "Restaurants, Food, Recipes."**

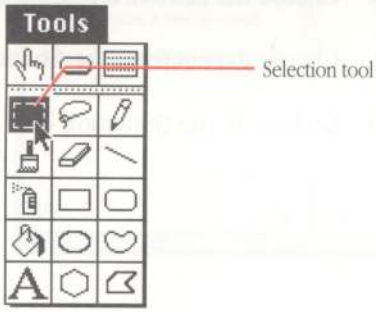
   To get to this card, choose Find from the Go menu, type the word `Food`, and press Return.

Figure 3-6 Food card

5. **When you find the picture you want, choose the Selection tool from the Tools menu.**

   The Selection tool lets you select a part of a picture to work on. (When you choose this tool, some new menu titles appear in the menu bar; ignore them for now.)

Figure 3-7 Choosing the Selection tool



6. **Drag diagonally across the images of the loaf of bread and the bottle of wine to select them; then release the mouse button.**

   The dotted lines move when you release the mouse button to show that the selection is active. Don't worry if you select too much; you can edit it later. If you make a mistake, choose Undo from the Edit menu and start dragging again.

Figure 3-8 Selecting a picture

7. **Choose Copy Picture from the Edit menu.**

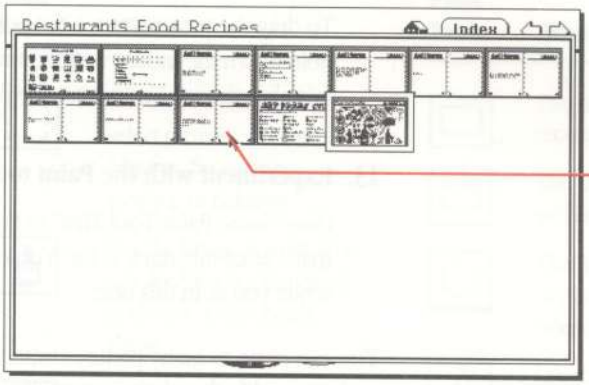
   What you copy goes onto the Clipboard, a holding place for cut or copied text and graphics.

8. **Choose the Browse tool from the Tools menu.**

9. **Choose Recent from the Go menu.**

10. **Go back to the Quotation card by clicking its image on Recent.**

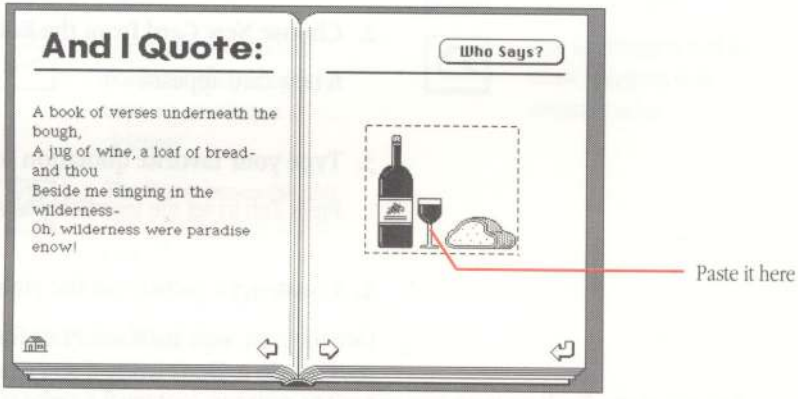
Figure 3-9 Going back to the Quotations stack using Recent



11. Choose Paste Picture from the Edit menu.

The material you copied to the Clipboard is pasted to the Quotation card. (See Figure 3-10.)

Figure 3-10 Pasting a copied image



12. **Drag the pasted picture where you want it to go; then click anywhere outside the picture to set it in position.**

    To drag the picture, move the pointer anywhere inside the selected area, hold down the mouse button, and move the mouse. If you make a mistake, choose Undo from the Edit menu.

13. **Experiment with the Paint tools to touch up your picture.**

    (See "Some Paint Tool Tips" in the next section.) It's OK to make a mess; that's what this stack is for. You can't inadvertently change any other stack while you're in this one.

You can paste as many pictures onto a card as you want. Use any of the Paint tools to modify the picture, or paint your own picture from scratch.

Using the Paint tools

This is a great time to experiment with the Paint tools. The Paint tools are shown in Table 3-1.

▶ Add a new card or two to the Quotations stack:

1. **Select the Browse tool.**

2. **Choose New Card from the Edit menu.**

   A new card appears.

3. **Type your favorite quotation on the left page.**

   Press Tab to set the insertion point at the top of the page.

4. **Construct a picture on the right page using the Paint tools.**

(See the next section, "Some Paint Tool Tips.") You can borrow from other stacks to do it. Don't worry if you aren't Rembrandt; this is all just for practice (and for fun).

■ **Table 3-1** The Paint tools

Paint Tool	What it's for	Paint Tool	What it's for
	Use the Selection tool to select pictures, or parts of pictures, for copying, moving, or deleting.		The Rectangle tool draws rectangles.
	Use the Brush to paint. You can double-click the Brush to choose a new brush shape		The Oval tool draws ovals and circles.
	The more you spray with the Spray tool, the more the pattern shows.		The Regular Polygon tool draws polygons with equal sides.
	Use the Bucket to fill in a closed shape you've already drawn.		Use the Pencil to draw thin, free-form lines.
	Use the Paint Text tool to type text that's part of the picture.		Use the Line tool to draw straight lines.
	Use the Lasso to select nonrectangular images for copying, moving or deleting.		The Rounded Rectangle tool draws rectangles with rounded corners.
	The Eraser erases the part of the picture you drag it over.		Use the Curve tool to draw free-form shapes.
			Use the Polygon tool to draw polygons with irregular sides.

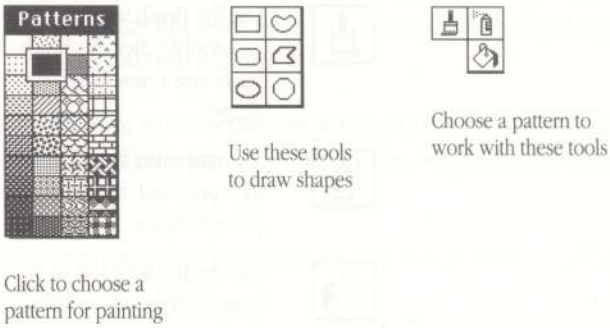
Some Paint tool tips

To select a Paint tool, just drag to the one you want on the Tools menu and then experiment. Most tools start to work when you press down the mouse button and drag, and stop when you release the mouse button. Here are some tips on using Paint tools:

- Select a pattern from the Patterns menu to use with the Brush, Bucket, and Spray tools.

- Choose Brush Shape from the Options menu and click the shape you want. Each shape gives a different effect, so experiment with them all.
- Use the Brush or Pencil for freehand work.
- The Eraser—erases.

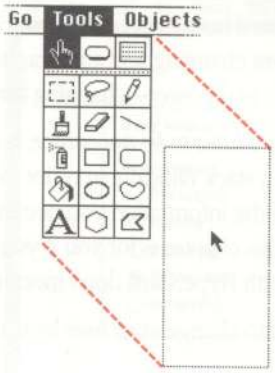
Figure 3-11 Using the Paint tools and the Patterns menu



Experiment with the other tools to see what they do.

❖ *Convert menus to palettes:* You can "tear off" both the Tools menu and the Patterns menu so that you can have constant access to them as you work. Just drag through them, past the bottom or off to one side; then leave them where you want them. When they get in your way, move them by dragging their top bars. Click their close boxes to make them go away.

Figure 3-12 Tearing off a menu



Experiment time

Experiment for as long as you want with the Paint tools. Make a mess on the screen. Create new quotation cards or modify old ones. Practice copying graphics from other stacks.

- *A quick cleanup trick:* If your screen gets really messy and you want to clean it up, double-click the eraser on the Tools palette: Everything you painted gets erased. If you double-click by mistake, choose Undo from the Edit menu.

You can read more about the Paint tools and what they do in the "Tools Menu" section of Chapter 7, throughout Chapter 6, and in the Menus section of the Help system.

▶ Go back to the Home card when you've finished experimenting.

When you're ready, go on to the final lesson, "Authoring," and learn how to create stacks of your own.

Authoring

You've learned how to get around in HyperCard, and you've had some experience in changing text and graphics on a card. In this section you'll learn HyperCard's real power—changing how things work.

- *You don't have to be an author:* It isn't necessary for you to learn how to change a stack radically in order to use HyperCard effectively. You already have all the information you need to get a great deal out of HyperCard. The rest of this chapter is for you if you have special needs that the stacks that come with HyperCard don't meet, or if you like to do things your own way.

You'll need to change your user level to become a stack author.

▶ Change your user level to Authoring on the User Preferences card:

1. **Choose Home from the Go menu.**

   If you've come here directly from the previous tutorial, the Home card is probably already on the screen.

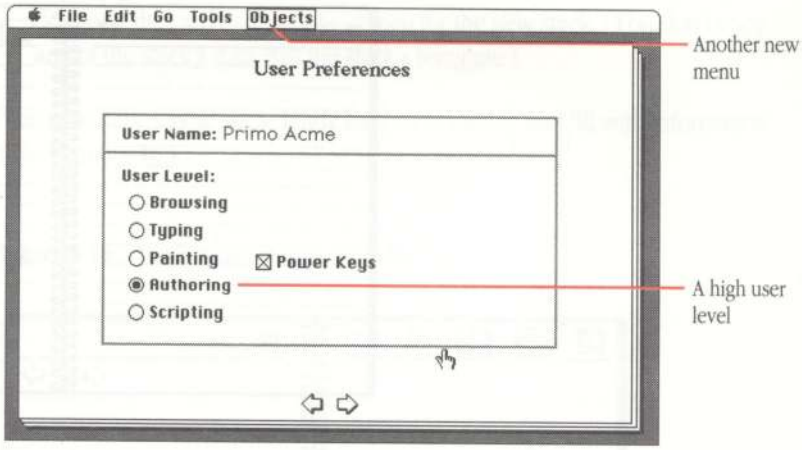
2. **Choose Last from the Go menu.**

   You move to the User Preference card, the last card in the Home stack.

3. **Click the button labeled Authoring.**

   A new title—Objects—appears in the menu bar. (See Figure 3-13.) You're now at the highest level that this guide takes you to.

Figure 3-13 Moving up to Authoring



Before you continue, go back to the Home card.

▶ Choose Home on the Go menu.

Making a new stack from an existing one

You can make a new stack based on an old one.

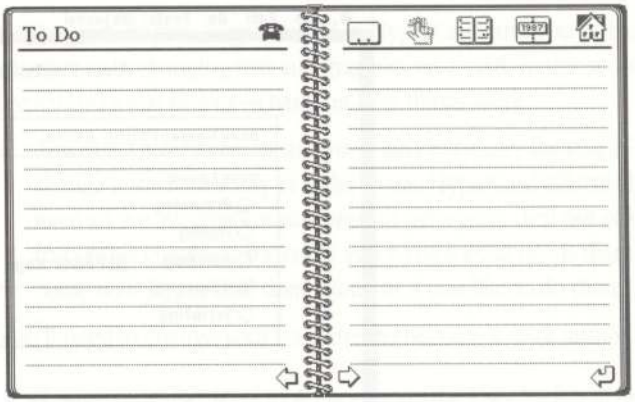
When you make a new stack based on an existing one, the new stack takes on some of the characteristics of the current card.

In this exercise, you'll make a new stack based on the To Do card. (You type all the things you've got to do today on the To Do card.)

▶ Move to the To Do card by clicking its icon.

The card in Figure 3-14 appears.

Figure 3-14 A To Do card



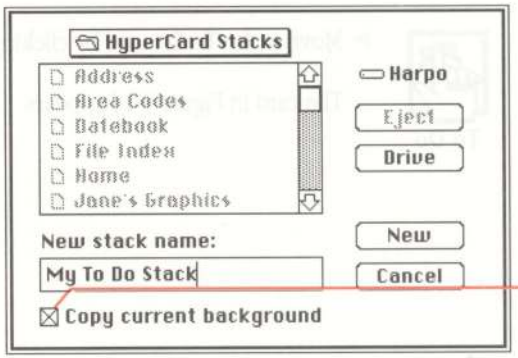
You'll use the basic design of this card for your new stack.

▶ Create a new stack based on the To Do card:

1. **Choose New Stack from the File menu.**

   The directory dialog box appears, asking you to name the new stack. (See Figure 3-15.)

Figure 3-15 Making a new stack



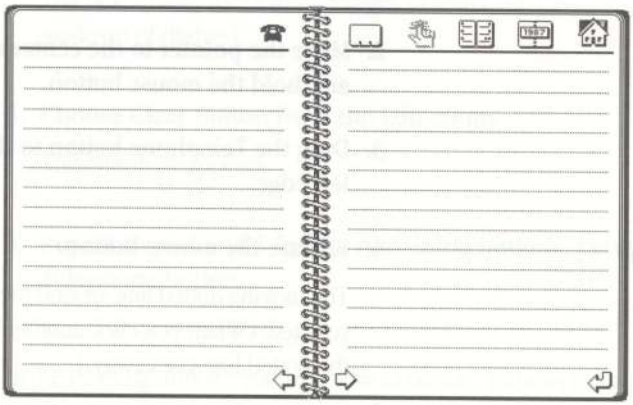
You use the current stack's design for the new stack if this box is checked

2. **Type** `My To Do stack` **and click New.**

   When you choose New Stack from the File menu, you can use the basic design of the card that's on the screen for the new stack. (You don't copy any of the stack's data, just the stack's template.)

You now have a new stack, ready for you to modify and fill with information. (See Figure 3-16.)

Figure 3-16 The first card in the new stack



Moving buttons

Customizing a stack is a matter of deciding what you like and don't like about a design, and then changing the design. In this exercise, you'll change the design by moving a button around.

▶ Move the Telephone button to the top-left side of the page:

1. **Select the Button tool from the Tools menu.**

   (It's the tool in the middle of the top row.) A box appears around each button on the card.

Figure 3-17 Choosing the Button tool

2. **Move the pointer to the center of the Telephone button, and press and hold the mouse button.**

3. **Drag the Telephone button to the left until it aligns with the left edge.**

4. **Release the mouse button.**

   The moving dotted line around the button lets you know the button is still selected. (When you click another button or when you select another tool, the dotted line goes away.)

The top of the card should look like Figure 3-18.

Figure 3-18 To Do card with the Telephone button moved

When you move a button, the only thing that changes is its position; what the button does remains the same.

Deleting buttons

Sometimes the buttons you find in a design don't do what you want. For this exercise, assume that the only buttons you want at the top of the card are the Telephone and Home buttons.

▶ Delete all but the Telephone button from the top of the card:

1. **Select the Button tool from the Tools menu.**

   If you've been following along, you've already selected this tool.

2. **Click the Address stack button.**

   The box around the button changes to marching ants (a moving outline made up of dashes).

3. **Choose Clear Button from the Edit menu.**

   The button disappears.

4. **Repeat steps 2 and 3 for the remaining buttons, except for the Telephone button.**

Copying buttons from another stack

In the Painting tutorial, you saw how to borrow pictures from other cards to use on your own cards. You can borrow buttons in the same way.

▶ Add a Home button by copying it from the Button Ideas stack:

1. **Choose Home from the Go menu to go to the Home card.**

2. **Click the Button Ideas icon.**

   If you're using HyperCard without a hard disk, you have to click the Drive button in the directory dialog box to find the Button Ideas stack.

   The card that appears is actually an index.

3. **Click the Text button.**

   The card in Figure 3-19 appears.

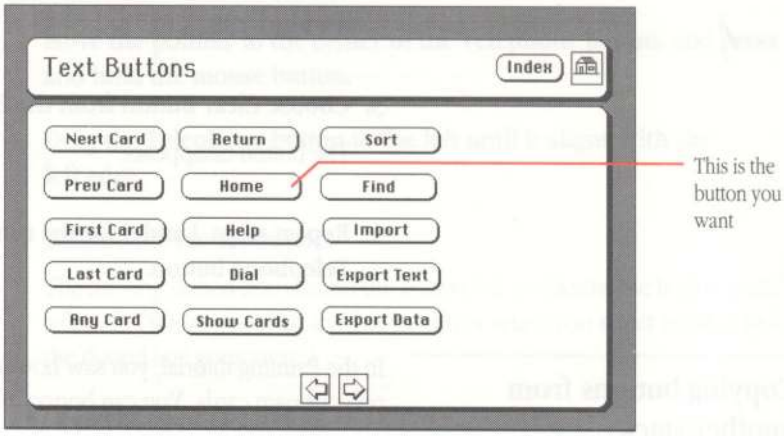
4. **Select the Button tool from the Tools menu.**

   Now you're ready to select a button and copy it.

5. **Click the button marked Home.**

   When you're using the Button tool, you click a button to select it rather than to make it carry out an action.

Figure 3-19 Assorted buttons



6. **Choose Copy Button from the Edit menu.**

7. **Get back to your To Do card using Recent from the Go menu.**

   Your To Do card reappears. Now you can paste the button you just copied.

8. **Choose Paste Button from the Edit menu.**

   The button you just copied appears.

9. **Drag the button where you want it to be.**

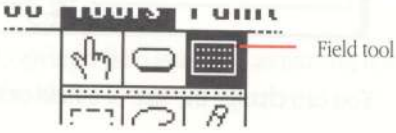
10. **Click the Browse tool to set the button in place.**

    Whenever you want to return to the Home card, you can click the Home button. (Try it out, if you like.)

Changing a field's size and position

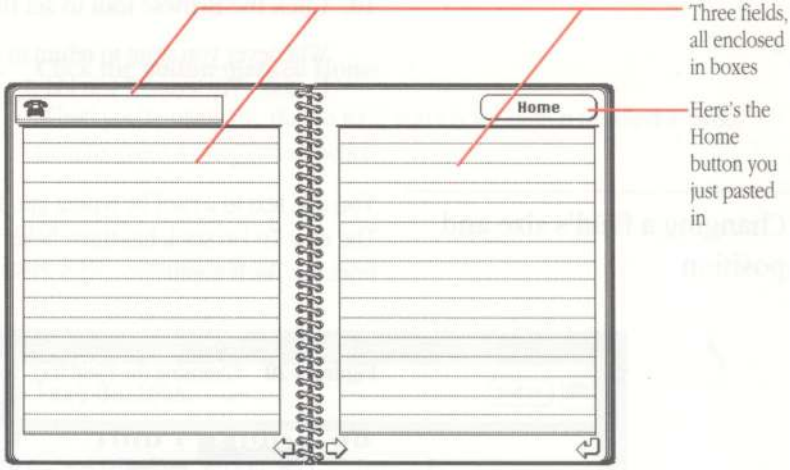
You add text to a card by typing into fields while the Browse tool is selected. The new To Do stack has three fields on it. To see them, choose the Field tool from the Tools menu.

Figure 3-20 Choosing the Field tool



When you choose the Field tool, you can see the fields on your To Do card.

Figure 3-21 The Home button pasted, fields visible



You can change the size of a field or move it easily.

▶ Change the size of the field on the right:

1. **With the Field tool still selected, click anywhere within the card's right field to select the field.**

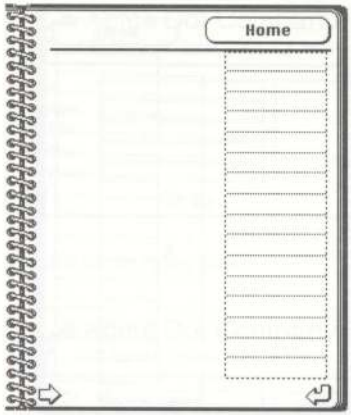
2. **Drag the lower-right corner of that field toward the left side of the card to make the field narrower.**

   Make it about one-third the width that it is now.

▶ Move the field you just changed by placing the pointer in its center and dragging the field to the right.

Move it close to the right edge. (See Figure 3-22.)

Figure 3-22 Shrinking and moving fields



Copying a field

Copying a field is as easy as moving one. And as long as you've got the room . . .

▶ Make a copy of the field on the right:

1. **Select the field on the right by clicking it.**

   You know it's selected because it's surrounded by a moving dotted line.

2. **Choose Copy Field from the Edit menu.**

3. **Choose Paste Field from the Edit menu.**

   The new field is pasted directly over the original, so the screen appears to show only the newly pasted field.

4. **Drag the copied field to the left.**

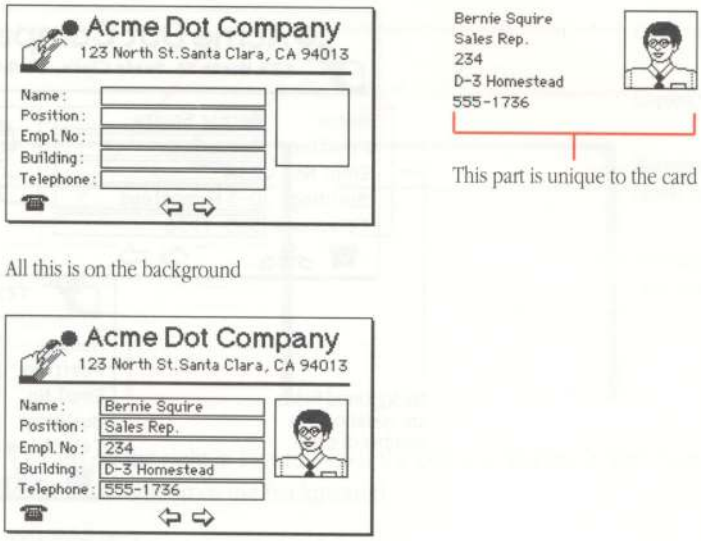
Figure 3-23 Copying a field

You can also copy fields from other cards, just as you can copy buttons and pictures.

Cards versus background

A number of cards can share the same **background**—a common set of elements. When you chose New Stack to create the stack you've been working on, you copied the background of the card that was on the screen at the time. Figure 3-24 shows a card with a distinct background part.

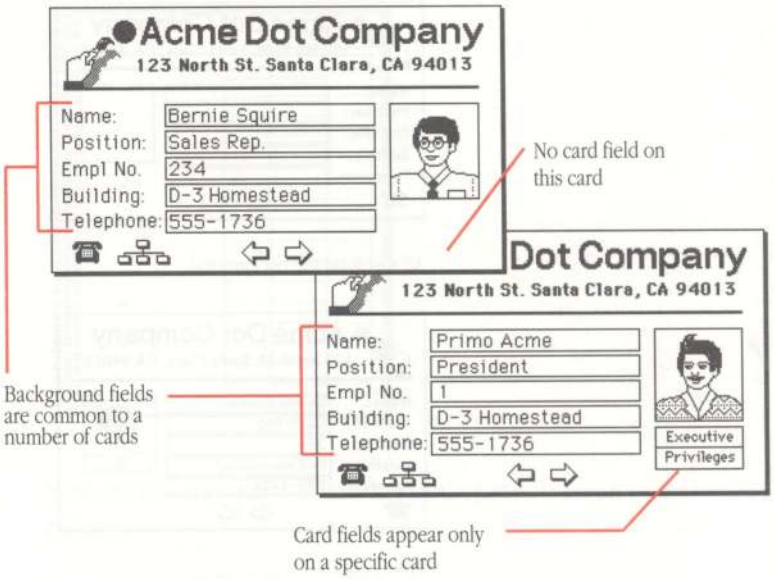
Figure 3-24 A background shared by a number of cards



This is what you see on the screen - a combination of the background and the part unique to the given card

Buttons, fields, and pictures can live on the background of a card, or on the card itself. When they're on the background, these objects—buttons, fields, and pictures—are shared by all cards associated with that background. When they're on the card, they're specific just to that card.

Figure 3-25 Background fields versus card fields

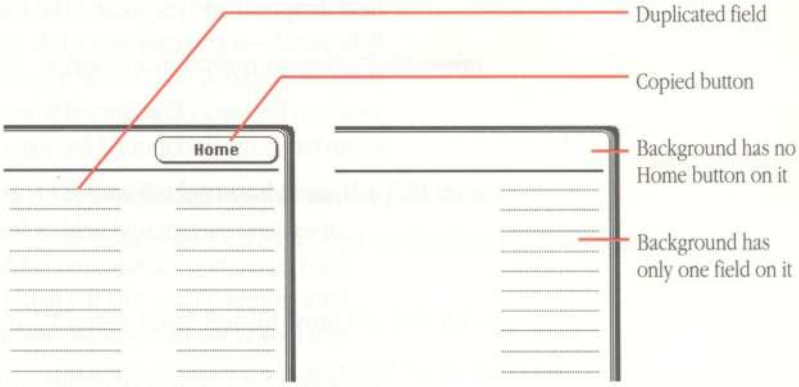


To see what this is about, you'll first have to make a new card for the stack you've been working on.

► Make a new card for the stack by choosing New Card from the Edit menu.

You'll notice that the Home button you pasted appears just on the first card—it wasn't duplicated when you chose New Card; and the field you duplicated was only duplicated on the original card. You created a **card field** and a **card button,** objects that work only on a single card; contrast that with **background fields** and **background buttons,** objects common to all cards that share a particular background. (With the Browse tool selected, click the left arrow and right arrow buttons at the bottom of the card to go back and forth between cards.)

Figure 3-26 The first card versus the second card



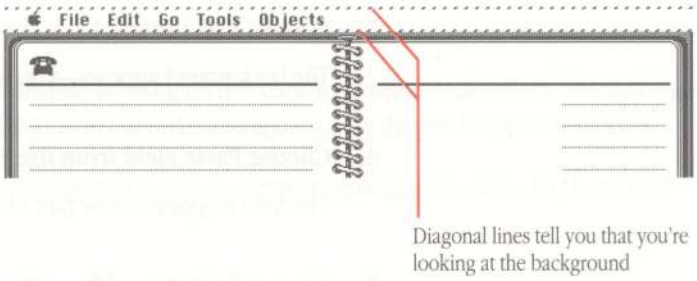
The card on the right in Figure 3-26 is the one you just made with New Card. Its features all come from the background.

▶ Look at the background for these cards:

1. **Be sure you're on the first card in the stack by choosing First from the Go menu.**
2. **Choose Background from the Edit menu.**

   The background appears. (See Figure 3-27.)

Figure 3-27 In the background



If you switch back and forth between the background and the card by choosing the Background command several times, you'll see the button and the extra field disappear and reappear. (The Background command is like a push-button light switch—if you choose it while you're looking at the card, you switch to the background; if you choose it while you're looking at the background, you switch to the card.) You can tell when you're in the background because the menu bar in the background has diagonal stripes.

- *You can edit background fields and buttons from the card:* You can make an existing background field or button smaller or larger or delete it but you can't create new background fields or buttons unless you're in the background. That's why the field you made smaller remains smaller when you look at the background, and the buttons you deleted remain deleted.

To make a field, button, or picture common to a number of cards, create it (or paste it or duplicate it) in the background.

You can move the duplicated field and the Help button from the first card to the background. When you do that, the extra field and the button will show on both cards, and on any new cards that you create.

▶ Move the duplicated field and the Home button to the background:

1. **With the Field tool selected, click inside the duplicated field.**

   Be sure you're on the card and not in the background—you shouldn't see any diagonal lines in the Menu bar.

2. **Choose Cut Field from the Edit menu.**

   The field disappears.

3. **Choose Background from the Edit menu.**

   The background appears—you see the diagonal lines again.

4. **Choose Paste Field from the Edit menu.**

   The field reappears, now part of the background.

5. **Choose Background from the Edit menu again.**

   You're back at the card—the diagonal lines in the Menu bar have disappeared.

6. **Select the Button tool and click the Home button.**

   You'll know it's selected because a moving dotted line surrounds it.

7. **Choose Cut Button from the Edit menu.**

   The button disappears.

8. **Choose Background from the Edit menu.**

   The background appears—you see the diagonal lines again.

9. **Choose Paste Button from the Edit menu.**

   The button reappears, now part of the background.

10. **Choose Background from the Edit menu a final time.**

You end up with all buttons and fields in the background. To prove it, create a new card.

▶ Choose New Card from the Edit menu.

The new card will have two fields on the right side and a Home button at the top.

❖ *A final note about fields:* What you type on a field created in the background can change from card to card, although the field's size and position remains constant on all cards associated with that background. When you create a field on a card, the field stays just with that card—and, of course, so does what you type in it. Experiment by creating a few card fields in the stack you just created to see what happens.

Experiment for a while

Continue working on this stack for a while. Make all the changes you want. Don't worry about messing things up; this stack is just for practice.

▶ When you've finished experimenting, go back to the Home card.

Connecting to the Home card

You've read here and in the first chapter that Home is your base of operations. It makes sense, then, to put a button on the Home card that gets you to the stack you just made. In this final exercise, you'll create a new button for the Home stack, give it a name, and then create a connection to your new stack.

▶ Create a link from the Home card to your To Do stack:

1. **From the Home card, choose New Button from the Objects menu.**

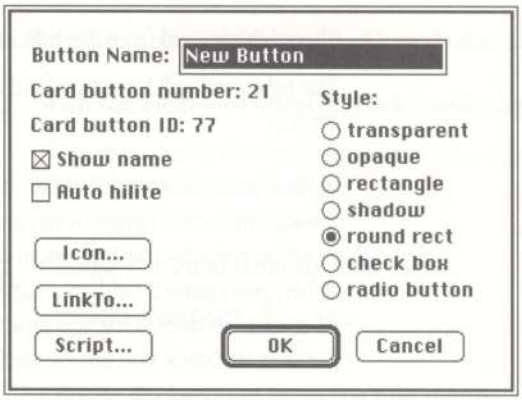
   New Button

   HyperCard selects the Button tool and a button named New Button appears selected in the middle of the Home card.

2. **Choose Button Info from the Objects menu.**

   The dialog box in Figure 3-28 appears.

Figure 3-28 The Button Info dialog box



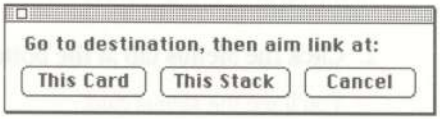
3. **Type** `Things to do` **into the Button Name box.**

   The new name replaces the old name, New Button. (You'll find details on the rest of this dialog box under "Button Info" in Chapter 7.)

4. **Click LinkTo.**

   The dialog box in Figure 3-29 appears.

Figure 3-29 The LinkTo dialog box



5. **Choose Open Stack from the File menu.**

   The directory dialog box appears.

6. **Select My To Do Stack and click Open.**

   The first card in the stack you just created appears.

7. **Click This Stack in the LinkTo dialog box.**

   HyperCard completes the link and returns you to the Home card.

8. **Drag the new button to a convenient place on the Home card.**

9. **Test your new button.**

   To do that, first select the Browse tool; then click the new button. You immediately go to your new stack.

Where to go from here

This ends your tutorials on HyperCard's basics. You know enough now to get off to a great start. You can go on reading in this manual to learn more about HyperCard or you can go off on your own, browsing and editing as you like. (Use the table of contents and the index of this manual to locate instructions for specific tools, tasks, and commands.)

You can also use the Help stack to learn more about tools:

1. Choose Help from the Go menu.

This gets you to the Help stack from anyplace in HyperCard.

If you're using HyperCard without a hard disk, you'll have to do some disk swapping to use Help. (This process is explained in Appendix C.)

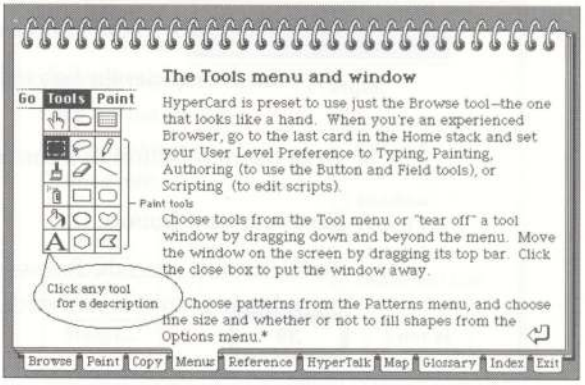
2. Click the Menus tab at the bottom of the card.

You'll see the Menus card.

3. Click the Tools menu and explore.

To learn about a specific tool, just click its icon. (See Figure 3-30.)

Figure 3-30 Exploring with the Help stack



Happy wandering!

CHAPTER 4

Home

HOME IS HYPERCARD'S CENTRAL STACK. EACH OF ITS CARDS HOLDS information vital to HyperCard's performance.

- The first card, Home, holds buttons that take you to the most important cards in your collection.
- Three search path cards tell HyperCard where to find applications, documents, and stacks that you use frequently.
- The User Preferences card lets you customize the way you interact with HyperCard.

▲ **Warning** HyperCard will not operate without a Home stack. Do not delete the Home stack. ▲

Home card

No matter what other cards and stacks you have, you always have Home. Most people use it as their starting place for moving around. You'll find the Home card most useful if you create a button on it linked to each new stack and to each of your favorite cards.

Figure 4-1 The Home card

- *Creating a graphic button for Home:* To create a graphic button, first paint or paste a small picture on Home representing the new stack; then cover that picture with a transparent button linked to the new stack. Or you can use icons as buttons by clicking Icon in a selected button's Button Info dialog box and choosing from the icons that appear. You can also copy predesigned buttons from the Button Ideas stack. "Copying Buttons From Another Stack" and "Connecting to the Home Card" in Chapter 3, and "Icon" in Chapter 7, provide step-by-step instructions for these procedures.

For information on linking buttons, see "Button Info" in Chapter 7.

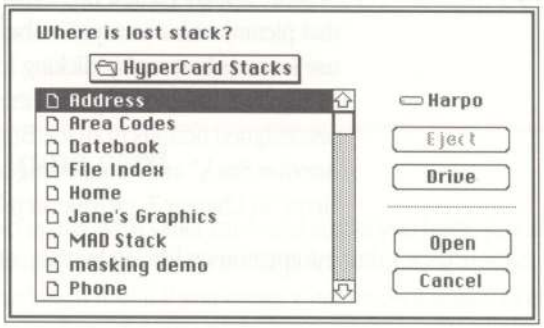
Search paths

A **search path** is the route HyperCard follows to retrieve a stack, application, or document. When you tell HyperCard to open a file—by clicking a button on the Home card, for example—HyperCard follows its own preset search paths to find the file.

- *Preset search paths:* HyperCard first looks for the requested file in the folder that's currently active; next it looks in the folder that the Help stacks are in; and then it looks on the root level of the directory—that is, on the current disk among the files that aren't in any folders. Finally, it checks the search path cards to see what route to follow.

If HyperCard can't find a file you ask for, it displays a directory dialog box. (See Figure 4-2.)

Figure 4-2 The dialog box for finding a file



As you click your way through the directory dialog box to locate a file, HyperCard records your path. Once you've located the file, HyperCard notes the volume and folder (and if necessary, subfolder) in which the file resides, and records it on the appropriate search path card in the Home stack. The next time you ask for that file, HyperCard will know where to look for it without having to ask you to find it.

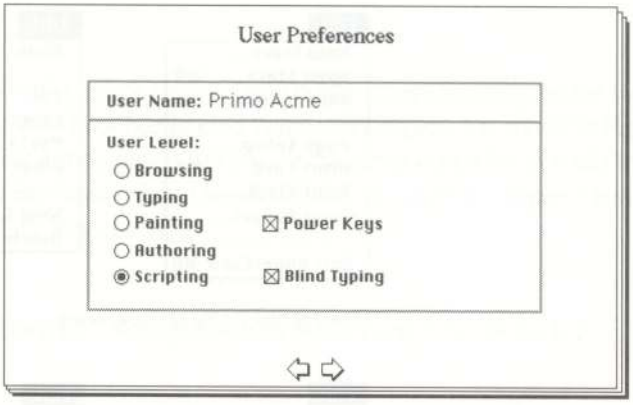
Important Although you can use HyperCard with a locked disk (or a locked volume), changes you make to stacks on a locked disk won't be saved. If you want your changes saved, make sure that any disk you use is unlocked.

- *Occasional housecleaning:* HyperCard keeps a search path on record until you erase it. It's a good idea to erase a search path you use infrequently, freeing up that space on the search path card. To erase a search path, just select it and choose Clear from the Edit menu.

User Preferences

Set the User Preferences card to customize the way you interact with HyperCard. From the Home card, click the left arrow to get to the User Preferences card (Figure 4-3).

Figure 4-3 Setting preferences



Click the proper user level to match what you want to do with HyperCard. The higher the user level you choose, the more power HyperCard gives you:

Browsing Short File and Edit menus (Figure 4-4), plus the Go menu. Use of the Browse tool.

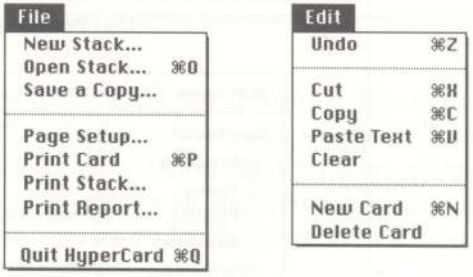
Typing Same as Browsing, plus ability to edit text in existing fields and check the Text Arrows option (explained in the next section).

Painting Same as Typing, plus full File and Edit menus (Figure 4-4), Tools menu (plus Paint, Options, and Pattern menus when a Paint tool is selected), use of all Paint tools (but not Button and Field tools), Power Keys and Text Arrows options.

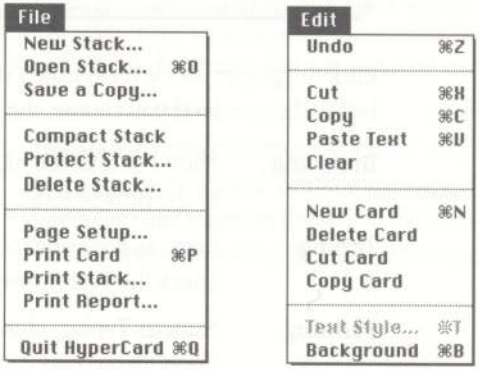
Authoring Same as Painting, plus Objects menu, use of Button and Field tools.

Scripting Same as Authoring, plus ability to type into Message box while it's hidden (if the Blind Typing option is chosen), plus ability to write and edit scripts. (The Message box is explained in the section "Message" in Chapter 7.)

Figure 4-4 Short and full File and Edit menus



Browsing and Typing get short menus



Painting, Authoring and Scripting get full menus

You can set one level now and change it to a higher one later, when your HyperCard skills improve or when you feel comfortable experimenting with more advanced abilities.

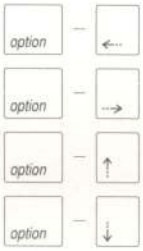
- *User preferences and stack protection:* The preferences you set here apply in a general way to all HyperCard functions. The tools and commands you have at your disposal while you're using a specific stack, however, are based both upon the level you set on the User Preferences card and on the specific stack's protection level. When a stack is set for a different level of use than is set on the User Preferences card, the lower setting has precedence. (Lower means "closer to Browsing.") See "Protect Stack" in Chapter 7 for details.

For information about power keys, see "Power Keys" in Chapter 6 and Chapter 7.

The Text Arrows option

When you click any user level button except Browsing on the User Preferences card, a check box labeled Text Arrows appears (as shown in Figure 3-3). The Text Arrows option lets you use the arrow keys when you edit text fields or text in the Message box. (See the section "Message" in Chapter 7 for an explanation of the Message box.)

Figure 4-5 Moving through cards when Text Arrows is checked



With Text Arrows checked, the Left Arrow and Right Arrow keys move the insertion point to the left and right over text in a field or in the Message box; the Up Arrow and Down Arrow keys move up and down through lines in a field. (When Text Arrows is checked, the Up Arrow moves the insertion point to the beginning of the line in the Message box, and the Down Arrow moves the insertion point to the end of the line.)

When Text Arrows is checked, if you want to move to the previous or next card, or to go back and forward through cards you've seen, hold down the Option key as you press the appropriate arrow (as shown in figure 4-5).

When Text Arrows is unchecked, the arrow keys move you through the cards (not over text)—you don't need to hold down the Option key.

Ways to go Home

HyperCard provides several ways to get to the Home card:

- Choose Home from the Go menu.
- Press Command-H (Press the Command key and, while holding it down, press H for Home).
- Click the house icon that appears on most stacks.
- Choose Message from the Go menu, type `Go Home`, and press return.

All these methods work equally well.

CHAPTER 5

Text in HyperCard

HYPERCARD HAS TWO KINDS OF TEXT: **PAINT TEXT** AND **REGULAR TEXT.** You create Paint text using the Paint Text tool; you'll find details about it in Chapter 6. This chapter covers regular text.

Creating regular text in HyperCard is a two-step process:

1. Use the Field tool to create the fields where text goes.
2. Use the Browse tool to type text into a specific field.

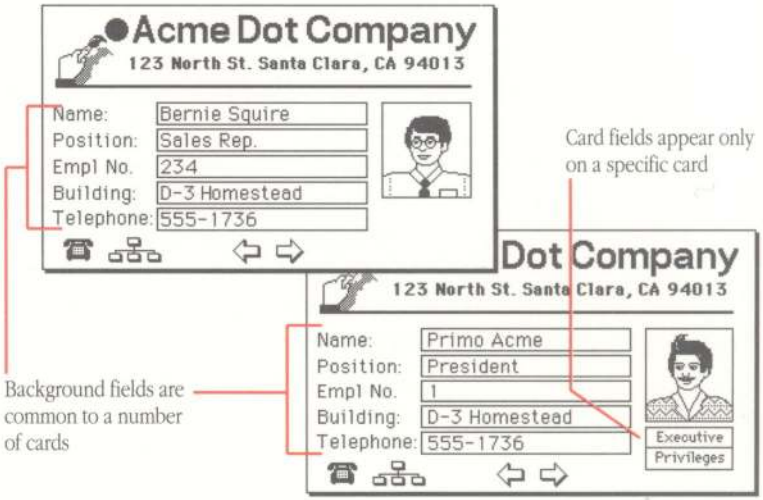
❖ *Watch your preference level:* To edit text in a field, you must be at the Typing level or higher on the User Preferences card in the Home stack. To create or change a field, you must be at Authoring level or higher.

In the next section, "Fields," you'll learn about the places where you type regular text. The section called "Creating Regular Text" tells you about entering and editing text, and how to move it from one place in HyperCard to another.

Fields

Fields are the boxes in which you type text. You can create background fields and card fields. A **background field** appears on every card associated with a given background. It has the same size, shape, and position on every card; what changes from card to card is the text in a field. Fields can be empty in one card, but have text in another. A **card field** appears only on the card where you create it (although you can copy a card field, and then paste it onto any other card).

Figure 5-1 **Different kinds of fields**



You can have as many fields on a card or background as will fit. Fields can overlap one another to any depth.

- *Text can overlap, too:* When fields overlap, the text within the fields can also overlap if some of the fields are transparent. Although you can create some interesting special effects this way, you can also create quite an aesthetic mess. When you overlap background fields and card fields, be sure to go through each card associated with the background after you've entered text to make sure things look the way they should.

Creating fields

You create fields by using the Field tool in the Tools menu.

Figure 5-2 The Field tool in the Tools menu

Follow these steps to create a field:

1. **Move to the card where you want the field to appear.**
2. **To create a background field, choose Background from the Edit menu.**
3. **Choose New Field from the Objects menu.**

   A new field appears in the center of the screen. Alternatively, move the pointer where you want the field to start; then press the Command key and drag. (See Figure 5-3.)

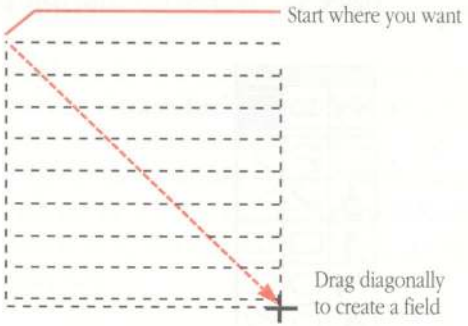
4. **Choose Field Info from the Objects menu and make selections as appropriate in the Fields dialog box.**

   The Fields dialog box is described in detail later in this chapter.

5. **Size the field appropriately.**

   See "Changing a Field's Size," later in this section. As you drag, a dotted rectangle appears showing you how wide and how long the field is; the lines in the rectangle show where the bottom of each line of text will be.

Figure 5-3 Creating a new field by dragging



The dotted lines go away when you choose another tool. The upper-left and lower-right corners define the size of the field; the lines going across show you the text lines within the field.

- *Changing line spacing:* You can change the amount of spacing between lines by changing the number in the Height box of the Text Style dialog box. See "Setting Text Properties," later in this chapter.

Important The most common mistake in creating a field is putting it on a card when it's supposed to be on a background. After you've created one or more fields, flip to the next card; if the fields you've just created are on that card too, you've created background fields.

Placing and moving fields

You can place a field wherever you want, including on top of another field. Follow these steps to move a field:

1. **Select the Field tool from the Tools menu.**

   The Field tool appears highlighted in the Tools menu, showing you that it's selected.

2. **Click inside the field you want to move to select it.**

   The field becomes surrounded by dotted lines to show it's selected.

3. **Drag the field by its middle.**

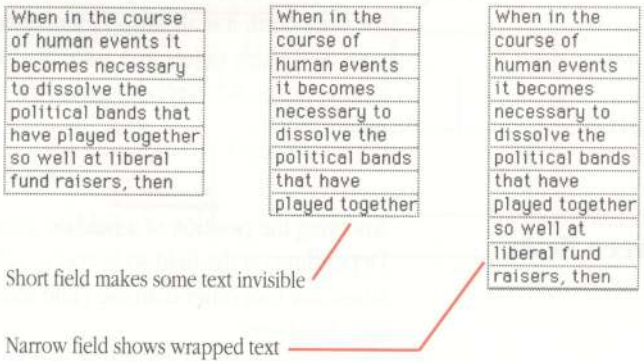
   When the field is where you want it, release the mouse button.

   When you move a field, any text you've typed moves with it. HyperCard won't let you move any part of the field off the card.

Changing a field's size

You can change a field's size whether or not it has text in it. When you change its size, any text in it wraps appropriately to conform to the new size. If you shrink the size of a non-scrolling field such that there's not enough room for all the text, text typed toward the bottom of the field becomes invisible. (It's still there, though; if you enlarge the field, the text becomes visible again.)

Figure 5-4 Changing a field's size



Changing the size or shape of a background field changes it on every associated card.

To change a field's size:

1. **Select the Field tool.**
2. **Click inside the field to select it.**

   The selected field is surrounded by dotted lines.

3. **Drag the field from one of its corners.**

You'll probably want to look through any cards affected by the field change to see how the text looks.

Deleting a field

You can delete a field whether or not it has text in it. Follow these steps to delete a field:

1. **Select the Field tool from the Tools menu.**
2. **Click inside the field to select it.**
3. **Choose Cut Field from the Edit menu.**

   Choose Clear Field to eliminate the field without affecting the Clipboard (or press the Backspace or Clear key).

▲ Warning

When you delete a field, you delete all its text along with it. Nothing goes onto the Clipboard; it is all simply eliminated. When you delete a background field, you irrevocably delete text associated with that field in every card on which the field appears. You cannot recover the lost text by choosing Undo from the Edit menu. ▲

Moving between fields

Knowing the position of a field on a card can be difficult sometimes. Depending on the field style you've selected, empty fields can be invisible when any tool other than the Field tool is selected (although any text in them will still show).

To move from one field to another in order to type text:

1. **Select the Browse tool from the Tools menu.**

2. **Press the Tab key until you get to the field you want.**

HyperCard first tabs through the background fields and then tabs through the card fields of the current card.

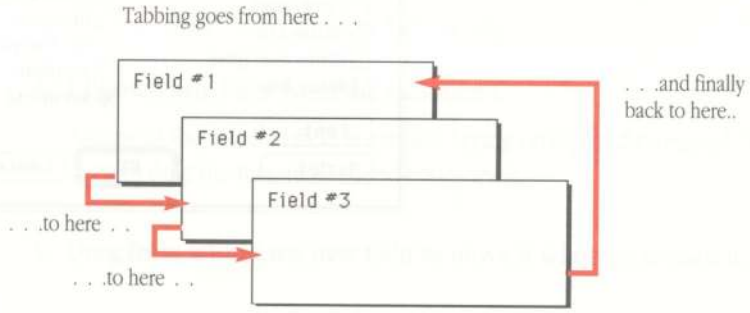
When you click in a text-filled area of a field, the insertion point appears wherever you click. When you click in an empty area of a field, the insertion point appears at the start of that empty line.

Tab order and layers

Pressing the Tab key moves the insertion point to the field with the next higher field number.

Initially, field numbers are in creation order. The first field created gets the number 1, the second field gets the number 2, and so on. (A pasted field is treated as a newly created field, no matter what its number on the card or background from which it was copied or cut.) If the insertion point is in field number 3 and you press Tab, the insertion point moves to field number 4; if there are only three fields, the insertion point moves from field 3 to field 1.

Figure 5-5 Tab order



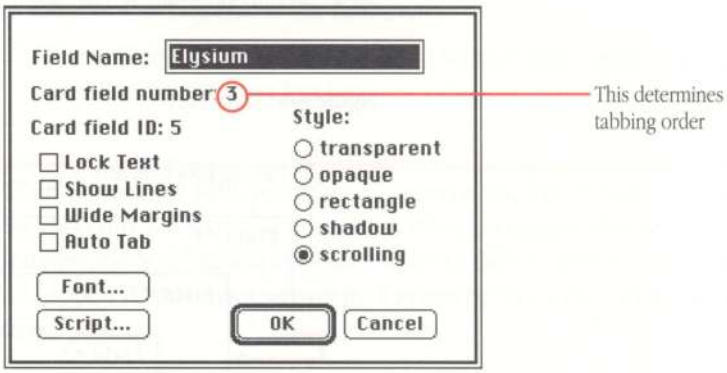
The **layer** is the order of the field relative to other fields on the same card and background. When the visible card and background have multiple fields, fields can lay over each other; the field created most recently is ordinarily the topmost field, said to be on the front layer. In Figure 5-5, field 1 is on the layer farthest away (or, if you prefer, in the back), field 2 is closer, and the highest numbered field, field 3, is on the frontmost layer. The lowest numbered field is always farthest away; the highest numbered field is always on the frontmost layer (or in front). In fact, you can think of the field number as being the field's layer number.

To see a field's number, follow these steps:

1. **Select the Field tool from the Tools menu.**
2. **Click inside the field whose number you want to see.**
3. **Choose Field Info in the Object menu.**

   Alternatively, just double-click in the field.

Figure 5-6 The field number, initially determined by creation order



Changing field tab order

You can change the tab order among background or card fields by changing the field's layer. (Figure 5-5 in the preceding section illustrates layers.)

To change a field's layer:

1. **Select the Field tool from the Tools menu.**

2. **Click inside the field whose layer you want to change.**

3. **Choose Bring Closer or Send Farther from the Objects menu.**

Each time you choose Bring Closer, the field gets closer to being the frontmost layer (with a correspondingly higher field number); each time you choose Send Farther, the field moves to a farther layer (with a correspondingly lower number). And as the layer order changes, so does the tab order.

Duplicating a field

Duplicating a field makes an exact copy of the field. You can duplicate a field either with or without its text.

To duplicate a field only (without its text):

1. **Select the Field tool from the Tools menu.**

2. **Select a field by clicking inside it.**

   A dotted line surrounds the field, showing that it's selected.

3. **Choose Copy Field from the Edit menu.**

4. **Choose Paste Field from the Edit menu.**

   A copy of the selected field is created, laying on top of the original. You need to drag the new field where you want it.

5. **Drag from within the new field to move it where you want it.**

Follow these steps to duplicate both a field and its text:

1. **Select the Field tool from the Tools menu.**
2. **Select the field you want to copy by clicking in it.**
3. **Choose Copy Field from the Edit menu to duplicate the field (or, if you want to delete the field from its current location, choose Cut Field).**
4. **Hold down Shift and choose Paste Field from the Edit menu, or type Shift-Command-V, to paste the text along with the field**
5. **Drag from within the new field to move it where you want it.**

❖ HyperCard only pastes text from the current card. If you cut or copy a background field and paste it in the background, only text from the current card is pasted—text from other cards is not.

Field names

Each field can have a name associated with it. You use field names mostly for advanced HyperCard features such as constructing scripts.

A field name can have any number of characters in it. You can use any character in a field's name.

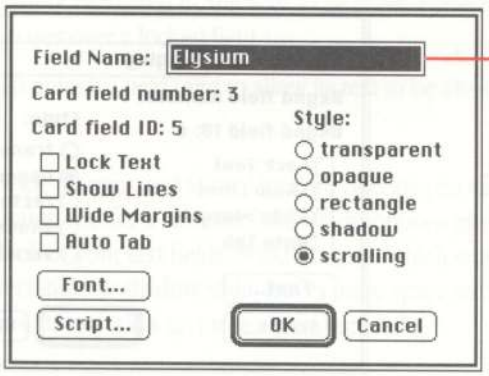
To name a field:

1. **Select the Field tool from the Tools menu.**
2. **Select the field you want to work with by clicking inside it.**
3. **Choose Field Info from the Objects menu (or just double-click the field).**

   The dialog box in Figure 5-7 appears.

4. **Type or change the field's name; then press OK.**

Figure 5-7 Naming a field



Type the name you want for this field. (You can change it any time you want.)

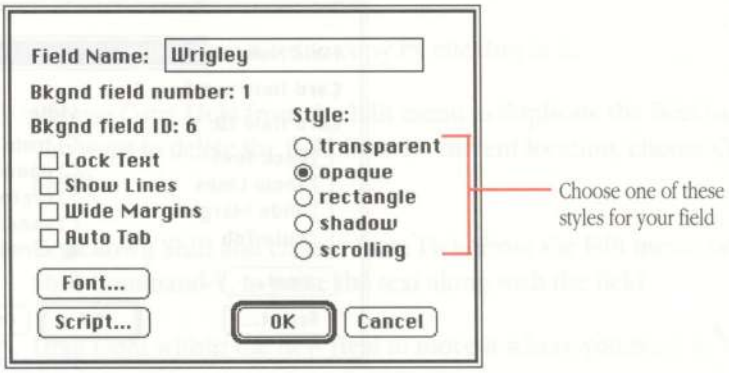
- *Script writers take note:* If you change the name of a field, be sure also to change its name everywhere else you refer to it. For example, if you rename a field "Wrigley" and you use the old name "Chester" in a script, the script won't work properly—it won't be able to find the field it needs.

Field styles

Fields can have five styles: transparent, opaque, rectangle, shadow, or scrolling. You choose the style of a field by choosing an option in the Field Info dialog box. (See Figure 5-8.)

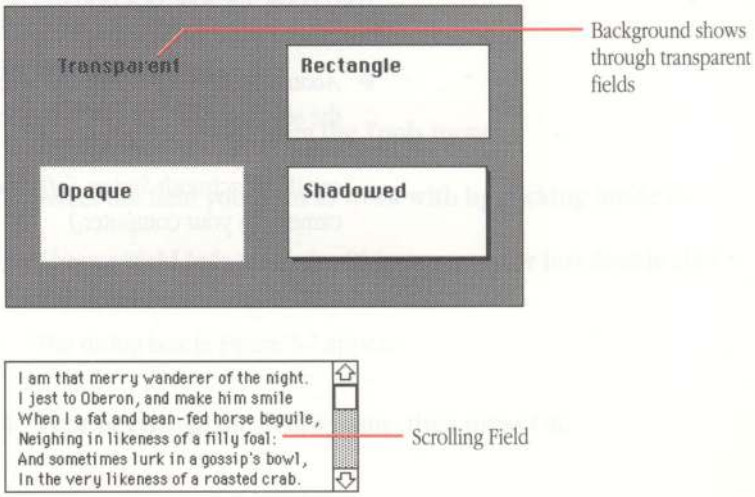
- *About scrolling:* Choosing the scrolling option adds a vertical scroll bar to the selected field. You view text in a field with a scroll bar as you do text in any scrollable Macintosh window. (For details about scrolling in windows, see the *Macintosh System Software User's Guide* or the owner's guide that came with your computer.)

Figure 5-8 Choosing a field style



You can change a field's style even after you've typed text into the field. Just repeat the steps you used to choose the original style. Figure 5-9 shows examples of field styles.

Figure 5-9 **Field styles**



If you don't choose a style, HyperCard uses Transparent.

Lock Text

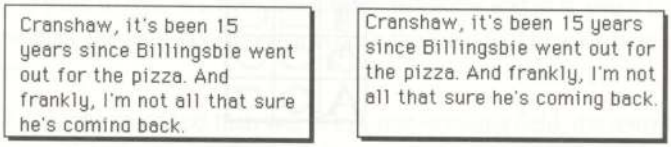
Lock Text protects the text in a field from being changed. When you check this option on the Field Info dialog box for a selected field, text within the field cannot be altered in any way. (The pointer doesn't change to an I-beam when it passes over a locked field.)

To unlock a field (and to allow its text to be altered), uncheck Lock Text.

Wide Margins and Show Lines

Wide Margins and Show Lines are options you can check in the Field Info dialog box for a selected field. These options give you more control over the look of your text fields. Wide Margins, which works best when the field has a rectangle or shadow style, leaves more space in the right and left margins. (As a result, text takes up more vertical space.)

Figure 5-10 Shadow fields with and without wide margins

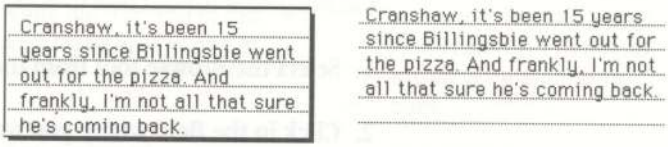


Wide margins

No margins

Show Lines lets you see where lines are as you type in text. Later, you can click Show Lines again to hide the lines.

Figure 5-11 Show Lines



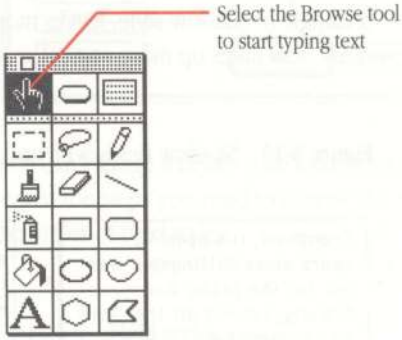
Show Lines in a shadowed field with wide margins

Show Lines in an opaque field

Creating regular text

Regular text goes inside fields that you've created. To create text, first you use the Browse tool to set the insertion point inside the field you want; and then you type.

Figure 5-12 Selecting the Browse tool



Important Use the Browse tool, not the Paint Text tool, for entering text in fields. Regular text is always editable in an unlocked field; Paint text, however, is not editable once you have typed it and clicked the mouse button.

Entering text

You use the keyboard to enter text in HyperCard. You must create a field before you can type text. (See "Creating a Field," earlier in this chapter.) The following steps explain how to enter text in a field:

1. **Select the Browse tool from the Tools menu.**
2. **Click in the field where you want to type.**

   (The insertion point appears at the left edge of the line you clicked.)

3. **Click where you want the new text to start.**

   Or select the text you want to replace.

4. **Start typing.**

   Your new text is inserted at the insertion point, or replaces the selected text.

▲ **Warning** When you tab to a field that already contains text, all the text is selected. Typing at this point will wipe out all the old text in the field, and replace it with what you type. To preserve the old text, move the pointer where you want to begin typing, and click. ▲

Fields without text in them are sometimes invisible; unless you tab to a field, or you want to type in a field that already has some text in it, you'll have to estimate the field's position (or choose the Field tool to see where all the fields are).

If you type more text than will fit in a non-scrolling field, the remaining text goes off the bottom of the field. But this invisible text isn't lost, it's just hidden. To see the hidden text, make the field bigger.

Figure 5-13 Revealing hidden text

Crenshaw, it's been 15 years since Billingsbie went out for the pizza. And frankly, I'm not at all sure he's coming	Crenshaw, it's been 15 years since Billingsbie went out for the pizza. And frankly, I'm not at all sure he's coming back.
Text goes beyond bottom of the field	Same text with the field enlarged

Moving and copying text

You can move and copy text from one part of a field to another, or from one field to any other field anywhere in HyperCard.

You use the basic Macintosh cut-and-paste techniques for moving and copying text in HyperCard. (For details, see the *Macintosh System Software User's Guide* or your Macintosh owner's guide.)

- *Uneditable text:* If you can't edit text, check the Field Info dialog box for that field to see if Lock Text is checked. If the field is unlocked, or if the text exists outside of a field, the text is Paint text. To change Paint text, you must erase the old text and create new text.

The section "Duplicating a Field," earlier in this chapter, explains how to copy a field along with its text.

Setting text properties

You can determine how the text in each field looks by using the Text Style dialog box.

To set text properties:

1. **Select the field you want to work with by clicking inside it.**

   Either the Browse tool or the Field tool must be active.

2. **Choose Text Style from the Edit menu.**

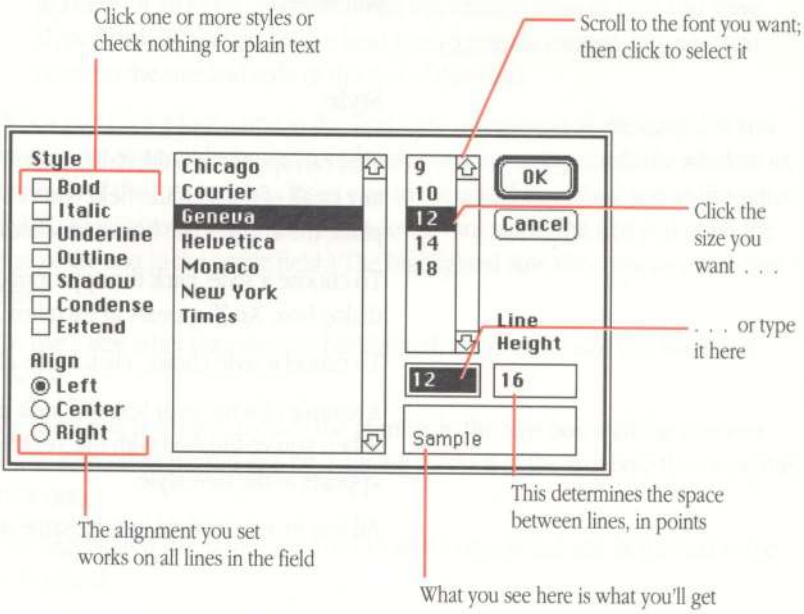
   The dialog box in Figure 5-14 appears.

3. **Set the properties as you prefer.**

   You can set font, size, style, alignment, and line spacing (line height).

4. **Click OK.**

Figure 5-14 The Text Style dialog box



Important The properties you set affect all the text within a field. You cannot, for example, make a single word bold unless it's the only word in the field.

Font

You can use any font that's on your startup disk. You can see all the available fonts by scrolling through the list at the bottom of the Text Style dialog box. The font of the text you've selected is highlighted.

To change the font, just click the one you want. A sample of what your text will look like appears in a box at the lower right. When you've finished with the Text Properties dialog box and click OK, the selected text appears in the new font.

To return to your work quickly, double-click the font you want. The dialog box closes immediately, and the selected text appears with all the properties you've set.

Style

Text can appear in bold, italic, underline, outline, shadow, or a combination of any or all of these. If the field you've selected has text in any style besides plain, the appropriate boxes are checked.

To choose a style, click the appropriate check box or boxes in the Text Style dialog box. An X appears in each box you've clicked.

To cancel a style choice, click in the check box again. The X goes away.

A sample of what your text will look like appears in a box at the lower right. When you've finished with the Text Styles dialog box, click OK; the text appears in the new style.

All text in a given field has the same style or styles.

Align

You can set the text in a field to align to the left side of the field, to the right, or to be centered within the field. The same alignment setting works for all lines within a field; you can't set each line separately.

To change the alignment, click the appropriate button. A black dot shows in the button you've clicked.

When you click the OK box and go back to your work, the text will be aligned properly.

Size

The box marked Size shows the size of the text in the field you've selected. The number you see is the text's size in **points**. (Point is a printer's term; one point is equal to about 1/72 of an inch.) Each point appears as a single dot on the Macintosh screen.

- *Preset size and style:* When you start HyperCard, the preset size and style is 12 point plain Geneva. The changes you make to size and/or style remain in effect for all fields you create until you change them or until you leave HyperCard. When you enter a field you've already created, any new text takes on the size and style of the rest of that field.

When you click a font name in the Text Style dialog box, all the sizes that you have in the System file for that font family come up in the scrollable window to the right of the font list; the closest one to the actual size of the text in the active field is highlighted. (If you haven't clicked a font name, the size you see is the size of the text in the active field.) The highlighted size also appears in the Size box.

To use a size other than the one highlighted, scroll to the size you want and click it.

To use a size not listed, replace the number in the Size box with the size you want. First select the old size by dragging across it in the size box; then type the new one.

The highlighted size is the one that's closest to the actual size of the text in the active field.

Height

Height is the space allowed for each line in a field, expressed in points. The number you see in the Line Height box of the Text Style dialog box includes space for the height of the characters and the space between lines, plus a couple of points for slack. HyperCard sets this number automatically when the font size changes; but you can set it by typing whatever number you want.

To change the line height, replace the number in the Line Height box with a new number. First select the old number by dragging across it; then type the new one. The new number replaces the old one.

To make lines touch or overlap, set the Line Height size lower than the Font size. The exact number varies from font to font; experiment until you get the effect you want.

- *Top line can get chopped:* You might lose some of the top line if you set the Line Height size below the Font size.

You can also vary the space between lines in a field using the following two Command-key sequences:

To increase the space between lines of text in a field, select the field and type Shift-Option-Command->.

To decrease the space between lines of text in a field, select the field and type Shift-Option-Command-<.

Summary

In this chapter, you learned about fields and text in HyperCard. You saw that:

- all regular text appears in fields
- you create fields using the Field tool
- you can create fields both on a background and on a card
- fields can be enlarged or made smaller, moved, copied, cut, deleted, and pasted
- you enter text into fields using the Browse tool
- you can move, copy, cut, delete, and paste text
- all text within a field shares the same properties—font, size, style, alignment, and line spacing

Chapter 6 has more details about text and fields. See especially "Print Report" for information on printing text in fields, and "Field Info" to read about protecting a field's text from being changed.

CHAPTER 6

Graphics in HyperCard

THIS CHAPTER PRESENTS AN OVERVIEW OF HYPERCARD'S GRAPHIC ELEMENTS and shows how the different elements can work together. (Chapter 7 tells you what tools and commands you have at your disposal for creating pictures.)

This chapter contains the following sections:

- "Menu Commands You Use With Graphics" provides a brief frame of reference for using the Paint commands in different menus to produce a finished picture.
- "Power Keys" gives details on special states and commands you execute from the keyboard.
- "Double-Clicking Paint Tools" summarizes what happens when you double-click on certain tools.
- "Dragging With Modifier Keys" lists the effects of pressing Command, Option, or Shift while you drag with different Paint tools selected.
- "Special Effects" shows what happens when you combine several features.
- "Importing Pictures" suggests ways to bring pictures into HyperCard from outside sources.

Menu commands you use with graphics

To make finished pictures in HyperCard, you use commands from several menus.

- To create the basic picture elements—shapes, patterns, contours—use the tools on the Tools menu and the patterns on the Pattern menu.
- To borrow pictures from cards that already exist in the current or other stacks, use the Copy and Paste commands from the Edit menu.
- To bring in a picture you created someplace else using MacPaint® or a MacPaint-compatible application, or that you brought into the computer using a digitizing camera, scanner, or some other peripheral device, use the Import command from the File menu. (You can also bring in pictures through the Clipboard and the Scrapbook.)
- To create a picture common to several cards, use the Background command.
- To manipulate the picture and to do finish work—rotate parts of it, bring up FatBits, and so on—use the commands in the Paint menu.

Power keys

When you choose Power Keys from the Options menu, striking a single key does the work of selecting a specific menu command.

The Options menu is visible only when you've selected a Paint tool.

Table 6-1 shows a list of menu commands and their power-key equivalents. (Each of these commands is described in detail in Chapter 7.)

Table 6-1 Power keys

Command	Key	Menu
Darken	D	Paint
Draw Centered (on/off)	C	Options
Draw Multiple (on/off)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (on/off)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Rotate Left	[	Paint
Rotate Right	]	Paint
Select	S	Paint
Select All	A	Paint
Select black pattern	B	Patterns
Select white pattern	W	Patterns
Trace Edges	E	Paint
Transparent	T	Paint

Listed next are descriptions of a few power keys that need special mention.

Power key P: Making a graphic cookie cutter

Power key P chooses the Pickup command in the Paint menu. It works like a cookie cutter. You drag a source image (the cookie cutter) over the image whose pattern you want to pick up (the cookie dough). HyperCard uses the outline of the source image as the cookie cutter. Pressing power key P is like pushing the cutter into the dough—when you drag the cutter away again, it's converted to the pattern you moved it over.

Figure 6-1 The source image picks up the pattern of the overlaid image

1. This is the shape with the pattern you want to change.

2. This is the pattern you want to use

3. Select the shape and move it over the pattern

4. Choose Pickup (or just press P if power keys are active)

5. Drag the shape away

Power key S: Tightening the selection

Power key S lets you lasso a picture that you've already selected with the Selection tool. You can also press S to select an area you've just drawn (or even erased) with another tool; once selected, you can move it or fill it, or do whatever else you want with it.

Figure 6-2 Refining a selection

Use the Selection tool
to grab the general area . . .

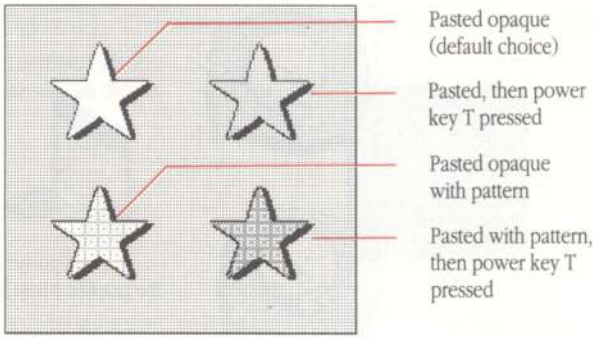
. . . press power key S to seperate
the graphic wheat from the chaff

Power key S is especially useful when you want to select a specific area quickly with no white space, or if your hand isn't steady enough to use the Lasso tool with precision.

Power key T: Turning a graphic transparent

Ordinarily when you draw or paste a graphic onto a card, the graphic is opaque—that is, it totally covers what it's drawn or pasted over. Pressing power key T makes the graphic transparent so that what it covers shows through.

Figure 6-3 Opaque and transparent images



Double-clicking Paint tools

Double-clicking certain Paint tools enhances using those tools. Here's a list of the tools and what double-clicking does. (Chapter 7 tells you what each tool is for, and how to use it.)

Table 6-2 Effects of double-clicking Paint tools

Double-click ...	Effect
Any pattern	Bring up Pattern Edit dialog box
Brush	Bring up Brush Shapes dialog box
Bucket	Hide/show pattern menu
Curve	Toggle Draw Filled command
Eraser	Erase whole picture
Lasso	Lasso every element in a picture
Lines	Bring up Line/Size dialog box
Oval	Toggle Draw Filled command
Paint Text	Bring up Text Style dialog box
Pencil	Set/cancel FatBits
Polygon	Toggle Draw Filled command
Regular Polygon	Bring up Polygon Sides dialog box
Rectangle	Toggle Draw Filled command
Rounded Rectangle	Toggle Draw Filled command
Selection	Select whole picture

Dragging with modifier keys

Dragging with different Paint tools selected has different effects, especially if you're pressing Command, Shift, or Option at the same time. Table 6-3 shows you what happens. Paint tools that aren't listed aren't affected by modifiers at all.

Table 6-3 Effects of dragging Paint tools while holding down modifier keys

Tool	Command	Shift	Option
Selection	Select tightly	Move selection horizontal or vertical	Copy selection
Lasso	Lasso everything	Move selection horizontal or vertical	Copy selection
Line	No effect	Draw at multiples of 15° angles	Draw with pattern
Eraser	Erase in white	Erase straight horizontal or vertical	No effect
Pencil	Get/leave FatBits	Draw straight horizontal or vertical	No effect
Rectangle	No effect	Draw square	Patterned border
Curve	No effect	No effect	Patterned border
Brush	Erase what you paint over	Paint straight horizontal or vertical	No effect
Spray	Erase what you spray over	Spray straight horizontal or vertical	No effect
Rounded Rectangle	No effect	Draw square with round corners	Patterned border
Polygon	No effect	Draw at multiples of 15° angles	Draw with pattern
Oval	No effect	Draw circle	Patterned border
Regular Polygon	No effect	Rotate in 15° increments	Patterned border

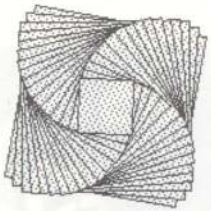
Special effects

In many cases, holding modifier keys down in combination with choices from the Options menu makes combinations of effects. Experiment with different combinations to see what happens. (Figure 6-4 shows some examples.)

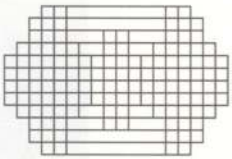
Figure 6-4 Special effects

Select part of a picture

Hold down Command-Shift-Option and drag with Grid checked in the Options menu to enlarge or shrink the selection



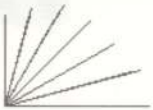
Draw Multiple and Draw Filled



Draw Multiple with Rectangle, Grid on

Draw Multiple with Circle tool, Grid and Draw Center on, Shift key held down

Draw Multiple, Grid on



Draw Multiple with Line tool, Shift key held down

Draw Multiple with Line tool, Grid on

Importing pictures

There are many products that create pictures compatible with MacPaint. Some products let you create MacPaint pictures from scratch, others let you digitize images using a video camera attached directly to the Macintosh, and still others connect to the Macintosh through an ImageWriter® printer. However you create it, you can bring any MacPaint picture into HyperCard using the Import Paint command on the File menu. Once you've imported a picture, you can treat it as if you had created the imported image in HyperCard.

- *Try the Clipboard:* Sometimes you might want to bring a non-MacPaint picture into HyperCard—for example, something you create using MacDraw or a similar application. Try copying the picture to the Clipboard or to the Scrapbook first; then paste into a HyperCard card.

Figure 6-5 An imported digitized image

- *Built-in screen shooter:* To take a quick snapshot of the screen in nearly any Macintosh application, press Command-Shift-3. This keyboard command, built into your Macintosh's System file, stores a picture of the screen on disk under the name SCREEN *n*, where *n* is a digit from 0 through 9. (When you already have all 10 digits used, your Macintosh beeps and you can't save more pictures until you rename or erase some.)

Summary

In this chapter you saw how HyperCard's graphic elements work together. You learned

- which menu commands to use to perform specific tasks
- how to use power keys instead of menu commands to perform certain functions, and about the unique effects of certain power keys
- the effects of double-clicking Paint tools
- the effects of dragging with different Paint tools selected
- the special effects that happen when you combine different elements

Chapter 7 gives details for using all the Paint tools in the sections called "Tools Menu," "Paint Menu," and "Options Menu."

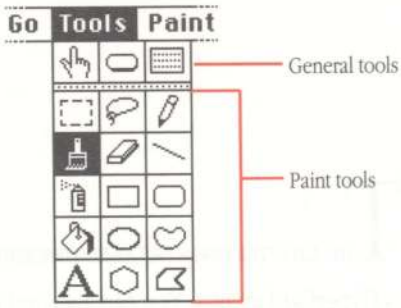
CHAPTER 7

Menu Commands

THIS CHAPTER GIVES DETAILED DESCRIPTIONS OF EACH COMMAND IN THE HyperCard menus. You can also find information on commands in the Menus section of the on-line Help system.

- *General tools versus Paint tools:* Throughout this chapter you'll see references to General tools and Paint tools. General tools are those tools that appear on the first row of the Tools menu; use them for general HyperCard tasks (browsing, creating buttons and fields, entering text). Paint tools are all the other tools on the menu; use them to create and edit pictures. For details, see "Tools Menu," later in this chapter.

Figure 7-1 General tools and Paint tools



Menu items are described in the order that they would appear if Scripting was checked in the User Preferences card of the Home stack. (See "User Preferences" in Chapter 4.)

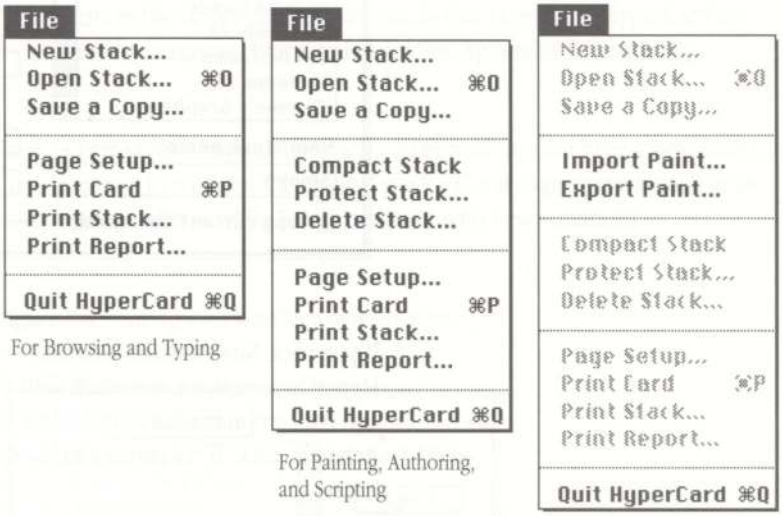
File menu

The File menu holds commands that save information to, or retrieve information from, a disk. You can choose any command on the file menu while you're using a General tool (that is, any of the tools on the top row of the Tools menu); while you're using a Paint tool, you can choose *only* Import Paint, Export Paint, or Quit HyperCard.

The different File menus

The level set on the User Preferences card of the Home stack, in conjunction with the protection level set for a particular stack, determines which menu appears when you press File. If either level is set to Browsing or Typing, you choose a command from the short menu (far left in Figure 7-2). Otherwise you choose from the full menu (middle in Figure 7-2). While you're using a Paint tool, you can choose *only* Import Paint, Export Paint, or Quit HyperCard (far right in Figure 7-2) no matter how high your level is.

Figure 7-2 File menus



For Browsing and Typing

For Painting, Authoring, and Scripting

With Paint tool selected

For information on user levels, see "User Preferences" in Chapter 4. For information on individual stack protection, see "Protect Stack," later in this chapter.

See "Tools Menu," later in this chapter, for a description of the tools.

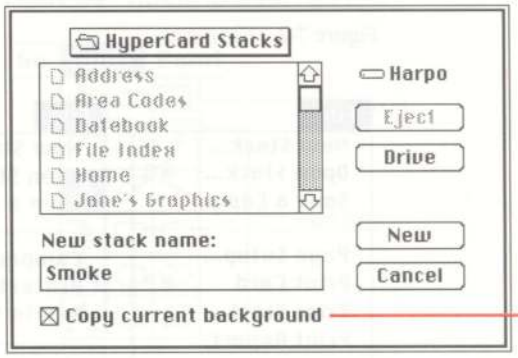
Δ Important HyperCard has no Save command. HyperCard automatically saves what you create whenever you switch from one card to another. To save your stack under a different name, use the Save A Copy command. Δ

New Stack...

New Stack puts away the current stack (making sure that all the work you've done is saved) and creates a new one.

When you choose this command, HyperCard puts up a directory dialog box and asks you to name the new stack.

Figure 7-3 Naming a stack



You use the old stack's design for the new stack if this box is checked

If you click New with the box next to "Copy current background" checked, HyperCard creates a new stack with the background fields, background picture, and background buttons (including all actions) of the last viewed card in the previous stack. If "Copy current background" is unchecked, the new stack is blank.

To choose this command, you must be using a General tool.

Open Stack...

Open Stack (or Command-O) opens an existing stack for your use. This command brings up the Directory dialog box and waits for you to select a stack. When you've made your selection, HyperCard closes the stack you were working with and saves any changes you made; then it gets the stack you asked for. The first card in the summoned stack appears on the screen.

- *An Open Stack alternative:* You can also open a stack by typing `Go "stack name"` into the Message box and pressing either Return or Enter. (You get the Message box by choosing Message from the Go menu.) For example, to get to the Art Ideas stack, type `Go "Art Ideas"` and press Return.

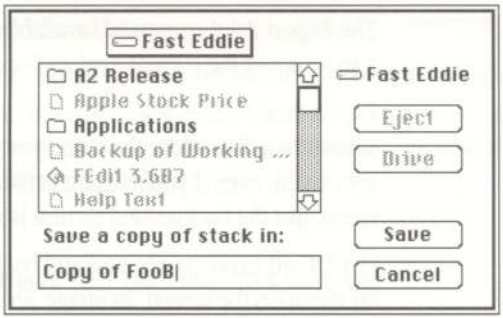
To choose this command you must be using a General tool.

- *Where the stacks are:* If HyperCard can't find a stack, it displays the directory dialog box and asks you to tell it where the stack is. If the stack is on a 3.5-inch disk, you'll need to insert the disk into one of your drives and click the Drive button in the directory dialog box until the name of that disk appears in the upper-right corner. Stacks that come with HyperCard are scattered among the HyperCard disks. See Appendix B for a listing.

Save a Copy...

Save a Copy saves a copy of the stack you're working on under a new name. (You continue to work on the original stack.) Use it to preserve a stack in its unchanged condition while you experiment with new variations.

Figure 7-4 Saving a stack under a different name



HyperCard presets the name of the copy to "Copy of (*original stack name*)." (The name is automatically selected; to change it, just type the new name.)

To choose this command you must be using a General tool.

Import Paint...

Import Paint (available only when a Paint tool is selected) gets a copy of a MacPaint-compatible document from the disk and pastes it onto the current card.

When you choose Import Paint, the directory dialog box appears so you can select a document using the hierarchical file system. HyperCard pastes the imported document, starting at the imported document's upper-left corner, onto the card.

- *Some picture prepping:* You might want to do some preparation work on a document before you import it. Make sure the part of the document you want to paste is in the document's upper-left corner before you bring it into HyperCard. (You can't scroll documents in HyperCard).

For complete information on graphics in HyperCard, see "Paint Menu," "Tools Menu," and "Pattern Menu," later in this chapter, and Chapter 6, "Graphics in HyperCard."

Export Paint...

The Export Paint command (available only when a Paint tool is selected) takes a snapshot of the current card and saves the snapshot as a MacPaint document.

Export Paint creates a MacPaint document from the card on the screen and saves it to a disk under the name you give it. The image of the full-sized card gets saved, even if you're using FatBits. If Background is checked in the Edit menu, just the background picture is saved.

HyperCard exports only card and background information. If you have a tear-off menu on the screen, its image isn't included with the exported picture.

You can't save buttons and actions using Export—you only save an image of what's on the screen (including images of buttons and text).

For complete information on graphics in HyperCard, see "Paint Menu," "Tool Menu," and "Pattern Menu," later in this chapter, and Chapter 6, "Graphics in HyperCard."

- *Quick exporting:* To take a quick snapshot of everything on the screen (including the menu bar and any torn off menus), press Command-Shift-3. This keyboard command, built into your Macintosh's System file and available any time, saves a picture of the screen under the name SCREEN *n*, where *n* is a digit from 0 through 9. (When you already have all 10 digits used, your Macintosh beeps; to make room for more, go to the Finder and rename or delete some of the snapshots.) You can use this shortcut in almost any Macintosh application, and later import the picture into HyperCard using the Import Paint command.

Compact Stack

This command (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) gets rid of free space in a stack. Free space gets introduced into a stack each time you delete a card, background, field, or button; the more free space in a stack, the slower and larger the stacks.

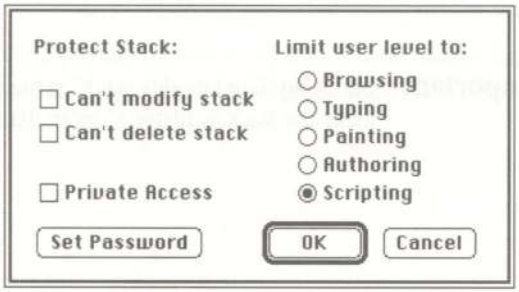
To see the amount of free space in a stack, look at the number following the words "Free in Stack" in the Stack Info dialog box. (Stack Info is an item in the Objects menu, available when Authoring or Scripting is checked on the User Preferences card.)

To use this command, you must have a General tool selected.

Protect Stack...

Protect Stack sets levels of protection for the information in, and design of, the current stack. Use it to keep your personal stacks private, or to limit the way people can use or change your stacks. Choosing this command brings up the dialog box in Figure 7-5.

Figure 7-5 The Protect Stack dialog box



Can't modify stack

This option allows you to set write-protection for your stacks. When this box is checked, you can't change the stack in any way. This means that you can't change the design of any background or card in the stack, enter or change text in any field, or delete the stack. (When "Can't modify stack" is checked, the "Can't delete stack" box is automatically checked.). You can, however, copy anything from the stack.

- It's easy to tell when you're using a write-protected stack—a padlock appears to the right of the rightmost menu title on the menu bar, and the commands Compact Stack and Delete Stack in the File menu are unavailable.

When a stack is on a write-protected medium (a locked disk, CD-ROM, or locked folder on a file server), HyperCard automatically puts a check in the "Can't modify stack" box; you can't uncheck it. To make permanent changes to such a stack, you first have to unprotect it. In many cases, copying a stack to an unlocked disk makes the stack modifiable. (But if "Can't modify stack" is checked or the Locked box is checked in the stack's Get Info box, you have to uncheck these boxes before you can make changes to the stack.)

▲ Warning Some stacks are designed so that, when the stack is locked, you can type into a field or paint a picture on a card or background; but the changes disappear as soon as you leave the current card. ▲

Using stacks on a file server

When a stack is on a locked medium (a locked disk, CD-ROM, or a locked folder on a file server) or its Locked box is checked in Get Info, any number of users can have read-only access to it via a file server. When a stack is unlocked on a file server, only one user has access to it.

Δ Important Checking "Can't modify stack" in the Protect Stack dialog box is not sufficient to make the stack available to more than one user on a file server. Δ

Can't delete stack

When this box is checked, you can't delete the stack.

Private Access

When this box is checked, you must type the proper password (as determined by Set Password, below) before HyperCard lets you use the stack at all.

Set Password

Click this button to set or change a password. You set a password to restrict access to the Protect Stack dialog box (thus preventing unauthorized changes) or to restrict access to the stack. The dialog box in Figure 7-6 appears.

Figure 7-6 The Password dialog box

Type the password you want to use into the "new password" text box; then press Tab to move the insertion point to the "verify new password" text box, and type the password again to verify it.

Click None to cancel the password and to put the dialog box away.

When you use the password later, it must match character-for-character the one you set. (Uppercase and lowercase letters don't have to match.)

Figure 7-7 Matching and nonmatching characters

When a password is set, you can't get to the Protect Stack dialog box without knowing the password. When Private Access is checked, you must know the password to use the stack at all.

▲ **Warning** There's no way to find out a password once it's been set. If you forget the password, you cannot get to the Protect Stack dialog box again. If you've checked Private Access and you forget your password, you won't be able to use the stack again once you leave it. ▲

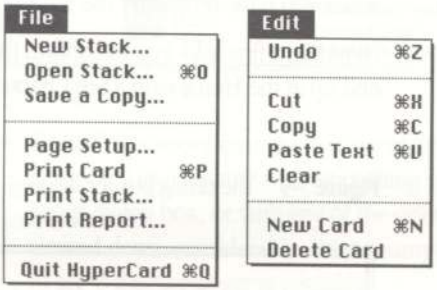
Limit user level

The box you check here limits the commands and tools a user can employ within the current stack. When a limit you set here conflicts with a limit set on the User Preferences card of the Home stack, the lower of the two levels takes precedence. (Browsing is the lowest level.) Table 7-1 shows the powers inherent in each level.

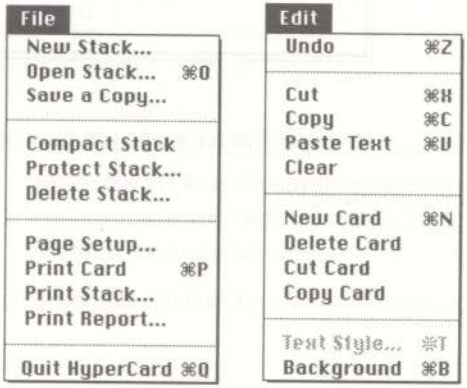
Table 7-1 Powers associated with each user level

Browsing	Short File and Edit menus (Figure 7-8), plus the Go menu. Use of the Browse tool.
Typing	Same as Browsing, plus ability to edit text in existing fields.
Painting	Same as Typing, plus full File and Edit menus (Figure 7-8), Tools menu (plus Paint, Options, and Pattern menus when a Paint tool is selected), use of all Paint tools (but not Button and Field tools), Power Keys option.
Authoring	Same as Painting, plus Objects menu, use of Button and Field tools.
Scripting	Same as Authoring, plus ability to write and edit scripts.

Figure 7-8 Short and full File and Edit menus



Browsing and Typing get short menus



Painting, Authoring and Scripting get full menus

Δ Important When you restrict a user's level to Browsing or Typing, Protect Stack doesn't appear on the File menu. (See far left, Figure 7-8.) To get a full File menu no matter what the user level is set to (either in Protect Stack or on the User Preference card), hold down the Command key before you drag through the File menu. Δ

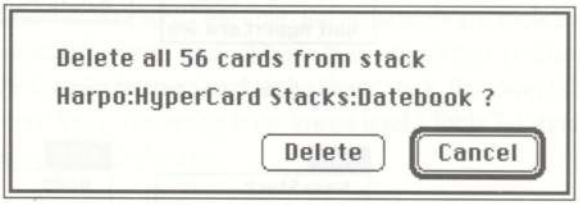
- Card and background protection: You can also protect each card or background individually by checking the proper box in the Card Info or Background Info dialog boxes. See "Card Info" and "Bkgnd Info," later in this chapter, for the details.

Delete Stack...

Delete Stack (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) removes all the cards, background pictures, background buttons, actions, and fields of the current stack. It's as though you had dragged the stack to the Trash in the Finder. Use it when you have no further use for a stack.

HyperCard first asks you to confirm the deletion. After the stack is deleted, you end up at the Home card. (See Chapter 4, "Home.")

Figure 7-9 The dialog box for deleting a stack

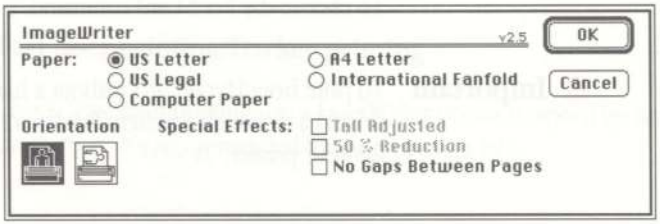


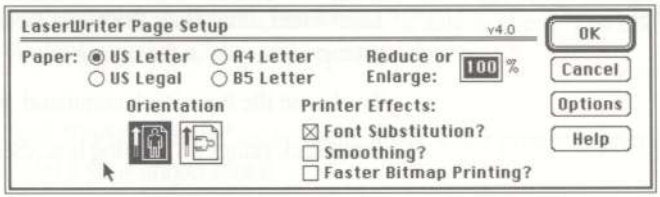
To choose this command you must be using a General tool.

Page Setup...

Page Setup lets you set paper size, orientation, and certain effects for printing. You see this dialog box:

Figure 7-10 The Page Setup dialog box





Landscape printing icon

- *LaserWriter smoothing or orientation flipping slows printing:* If you're using an Apple LaserWriter® with Smoothing checked in the LaserWriter Page Setup dialog box, or with any of the orientation options checked, printing is slowed down considerably. Print a sample with Smoothing unchecked first to see if the results are acceptable.

Important If you select the landscape printing icon for horizontal printing on your LaserWriter, be sure to choose Fast Laser Printing. If you don't, printing a stack will be extremely slow. Δ

- *Some LaserWriter printing features don't work:* The Reduce or Enlarge feature doesn't work for any printing in HyperCard. The Invert option works correctly only when Fast Laser Printing is turned off, but it takes an extremely long time to print.

To choose this command you must be using a General tool.

Print Card

Print Card (or Command-P) prints the current card using the specifications you gave in Page Setup (except that cards are printed full size, no matter what reduction or enlargement you specify). Use the Print Card command when you need a hard-copy version of any single card in any HyperCard stack. (To print all the cards in a stack, use Print Stack, described in the next section.)

To choose the Print Card command, you must be using a General tool.

Δ Important To print from HyperCard without a hard disk, you must have (in one of your drives) a disk with a System Folder containing the appropriate printer resource for your printer. Δ

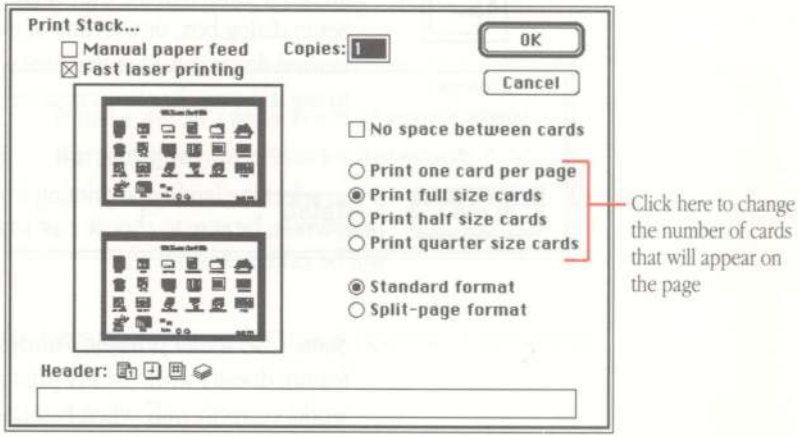
Print Stack...

Print Stack prints all the cards in the current stack in linear order. (With a LaserWriter, Print Stack prints the cards in reverse order so that the first card is on top of the pile in the output tray.)

To choose the Print Stack command, you must be using a General tool.

Print Stack brings up a dialog box. (See Figure 7-11.)

Figure 7-11 The Print Stack dialog box



Manual paper feed

Check the box labeled "Manual paper feed" if you're feeding the paper by hand; HyperCard will stop the printer after each sheet and wait for you to add more paper.

Fast laser printing/Darker printing

Check "Fast laser printing" on a LaserWriter printer to speed up hard-copy production. It's recommended for most printing jobs.

Important If you select the landscape printing icon in the Page Setup dialog box for horizontal printing on your Laserwriter, be sure to check "Fast laser printing." If you don't, printing a stack will be extremely slow.

Check "Darker printing" on an Apple ImageWriter printer to print darker (useful if your ribbon is old).

Click "No space between cards" to print cards close together (for printing two cards or more per page).

Cards printed per page

Click one of the four choices to determine how many cards are printed per page. Look in the minipage window to see how many cards fit on a page. (The number varies with the options you've chosen.)

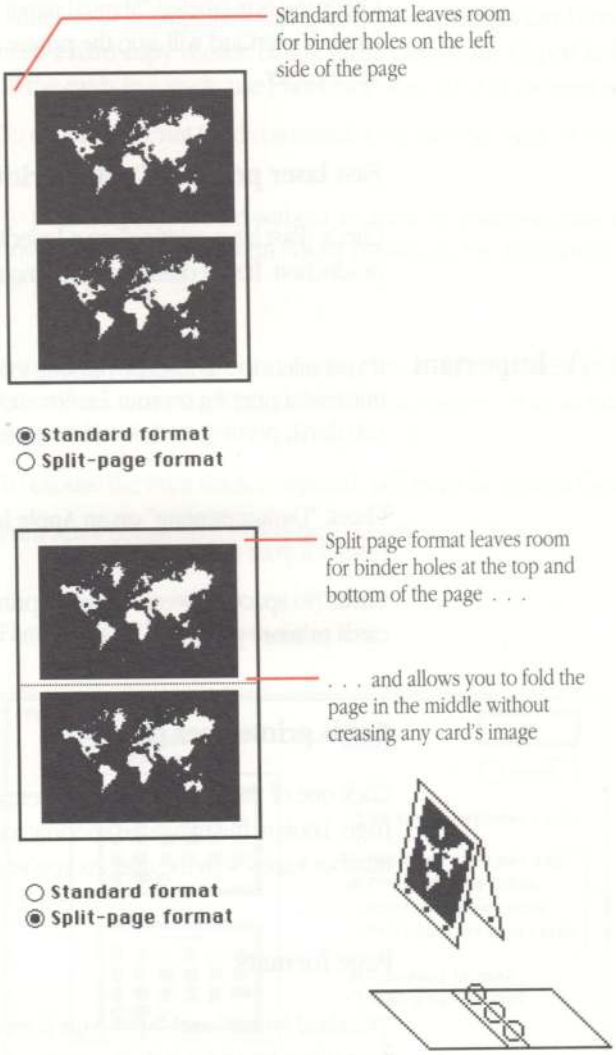
Page formats

"Standard format" and "Split-page format" determine how cards are spaced on a page when you print a stack.

"Standard format" prints cards evenly spaced on the entire page. This choice leaves enough room on the left edge to put binder holes in the printout.

"Split-page format" spaces cards so that the printed sheet can be folded down the middle without creasing any card's image. This choice leaves room for binder holes at the top and bottom of the page.

Figure 7-12 Standard format and Split-page format



Header

Tab to the Header box and type what you want to appear as a heading at the top of each sheet. Click the proper icon(s) after you tab to add page numbers, the date, the current time, and/or the stack name to the header. Click icons in the order you want them to appear in the heading. (Use the space bar to separate them.) You can preview what the header will produce by looking at the miniature representation of the page, which is shown at the left of the dialog box.

Format remembered

Once you print a stack, HyperCard remembers the format and header you used for that stack so you can use the same setup next time you print.

Print Report...

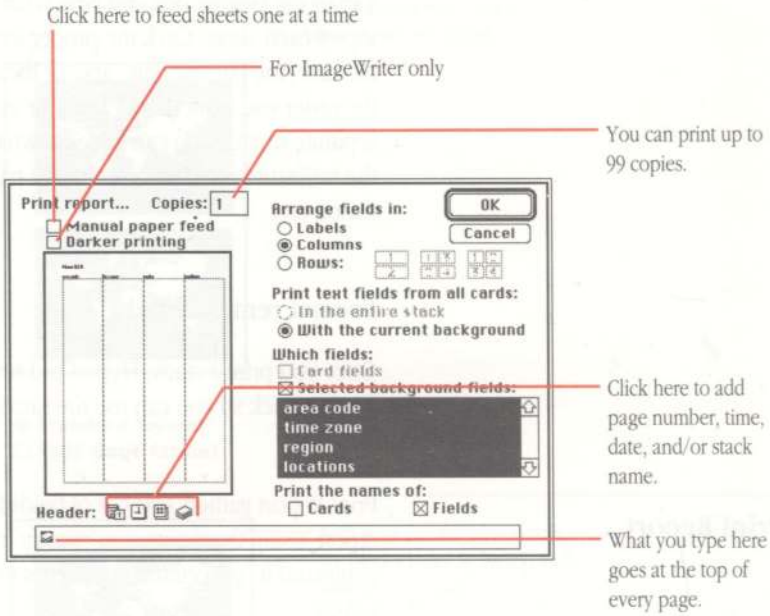
Print Report gathers text out of fields from the cards in a stack and prints a report, using the design you specify in the Print Report dialog box. Use this command to get printed summaries of your stacks in a form most useful to you.

To choose this command you must be using a General tool.

- *Reports are based on a single stack:* Each report is based on information from a single stack. There is no way to combine information from two separate stacks into a single report.

When you choose Print Report, the dialog box in Figure 7-13 appears.

Figure 7-13 The Print Report dialog box



You can print reports in three formats—labels, columns, or rows.

Here's a list of alternatives showing the various combinations of fields that can appear in your reports. (You can use only the last alternative for the column format.)

- all card fields in the stack
- all background fields in the stack
- all background and all card fields in the entire stack
- all card fields from cards with the current background
- all card fields from cards with the current background, plus all or some of the current background fields
- all or some fields from the current background

To a print a report based on one of these alternatives, you must click buttons and check boxes on the Print Report dialog box in the proper combination.

Table 7-2 shows you those combinations.

Table 7-2 Controlling the printout of a report

To print...	Click this radio button	... and ...	Check only these boxes
All card fields in entire stack	In the entire stack		Card fields
All background fields in entire stack	In the entire stack		Background fields
All card fields & all background fields in entire stack	In the entire stack		Card fields Background fields
All card fields of cards with current background	With the current background		Card fields
*Selected background fields of cards with current background	With the current background		Selected background fields
All card fields and selected background fields of cards with current background	With the current background		Card fields Selected background fields

*This is the only format available for printing in columns.

When you check "Selected background fields," you activate a selection box from which you select fields to print from the current background.

To select a field, click its name. Use the Scroll bar to look through the list of field names.

To select more than one field, hold down the Shift key as you select each name.

To deselect a field, click its name.

To deselect a field when more than one are selected, hold down the Shift key as you click.

Field printing order

The order in which you select fields determines their printing order. On labels, the first field you select goes on the top line of the label, the second field goes on the second line, and so on. In the column format, the order in which you select fields determines their left-to-right printing order. In the row format, the first field you select goes on the top line of the card block, the second field goes on the second line, and so on.

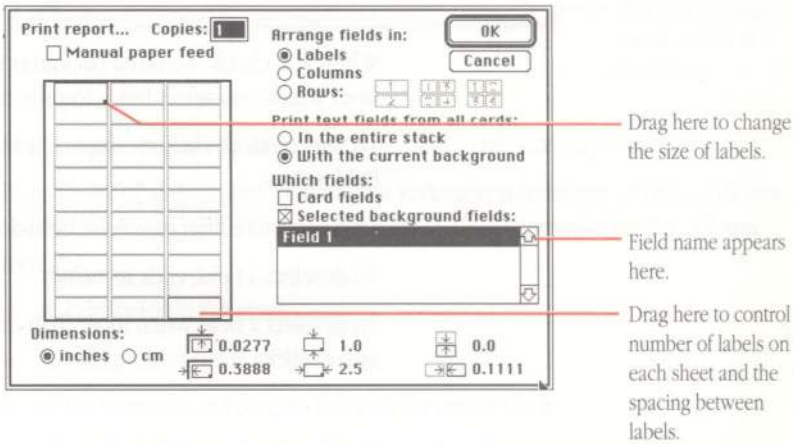
Labels

Clicking this button makes HyperCard print the fields you've selected in a format suitable for labels. Each label contains text from the fields of one card. HyperCard automatically centers the text in each label.

You can change the number of labels per sheet and the size and spacing of the labels by dragging on the highlighted parts of the dialog box's minipage window.

As you change the dimensions of labels by dragging in the minipage window, HyperCard shows you the maximum number of labels that will fit on a page. Changes you make in the position or size of the labels are reflected in the measurements at the bottom of the window; use the numbers that appear there as a guide. See Figure 7-14.

Figure 7-14 Print Report in label format



If text on a line in a field is too wide for a label, HyperCard wraps the text onto the next line. If there are too many lines to fit on a label, HyperCard prints what will fit.

- *About LaserWriter labels:* Only use labels made especially for LaserWriters or photocopiers. Check "Larger Print Area" under Options in the Page Setup dialog box for better centering of text on the labels that run along the left and right edges of the page.

- *About ImageWriter labels:* Use labels that are on 8.5-by-11-inch tractor-feed pages.

Columns

In the column format, selected fields from the current background are printed side by side in vertical columns across the page. Each field has its own column. (See Figure 7-15.)

Important You must have "With the current background" checked for the column format to work.

If a column is too narrow for the entire contents of a field to fit on one line, HyperCard wraps the text to new lines as appropriate.

HyperCard won't let you select more fields than will fit across the page. You can see how many will fit by looking at the minipage window.

You can control the horizontal width of each column by dragging the dashed separation lines.

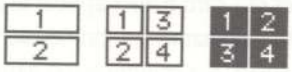
If you check Cards under "Print the names of," card names appear in their own column on the far left. If you check Fields, field names are printed across the top of the page above the appropriate column. If a column is too narrow for the entire field name to fit, the field name is truncated.

Figure 7-15 Print Report in column format

Card Name	Name and Address	Phone Number	Date
Card 1	Steve Aaron 2260 Oak Creek Drive	555-7806	2/23/87
Card 2	Katie Aichler 9424 Middlefield Road	555-4844	2/23/87
Card 3	Martha Belion 8495 Jefferson St	555-0934	2/23/87
Card 4	Marti Belisle 3703 Maude Ave	555-8203	5/26/87
Card 5	Roger Benrey 9541 Mount Vernon Dr	555-3005	2/23/87
Card 6	Loween Blank 6686 Martin Ave Prairie, Texas	(214) 555-5456	2/23/87

Rows

In the Row format, information from each card is printed as a block. Fields read vertically down the page for each card.

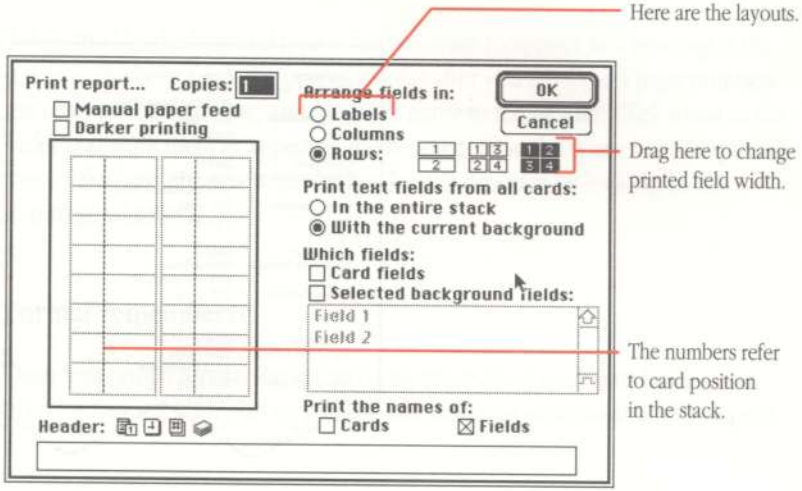


The 3 row layouts

You can choose among three different layouts to determine the sequence of printing, and the amount of space across the page that's allocated to each block.

If you click on the left layout, each field's information is printed across the width of the page, each field below the previous one. With the center and right layouts, HyperCard prints blocks of information for two cards side by side. (See Figure 7-16.)

Figure 7-16 Print Report in row format



The card sequence in which the information is printed depends on the layout order you select. If you select the layout order in the center, reports appear beneath each other in the left column until page bottom; The next card's report appears at the start of the right column. If you select the layout order on the right, the block reports alternate left-right down the page. (See Figures 7-17 and 7-18.)

If you check Fields under "Print the names of," the name of each field is printed to the left of the field's contents. (If the field is empty, HyperCard skips it and doesn't print the field's name.) You can grab the vertical dotted line and drag it to adjust the width for the name. Card names are printed at the top of each card's block.

Card blocks are printed in the order that the cards appear in the stack.

Figure 7-17 A printed report in row format, top to bottom order

Card Name:	*Card 1*	Card Name:	*Card 10*
Name and Address:	Steve Aaron 2260 Oak Creek Drive	Name and Address:	Emmett Cardenas 1919 Short Street
Phone Number:	555-7806	Phone Number:	555-8487
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 2*	Card Name:	*Card 11*
Name and Address:	Katie Aichler 9424 Middlefield Road	Name and Address:	Joshua Carlson 6291 Elliot Street
Phone Number:	555-4844	Phone Number:	555-3109
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 3*	Card Name:	*Card 12*
Name and Address:	Martha Belion 8495 Jefferson St	Name and Address:	Kari Daly 1964 Lundy Ln Christe, Texas
Phone Number:	555-0934	Phone Number:	(512) 555-8745
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 4*	Card Name:	*Card 13*
Name and Address:	Marti Belisle 3703 Maude Ave	Name and Address:	Annette Darling 400 Ohio Ave Bristol, Pennsylvania
Phone Number:	555-8203	Phone Number:	(215) 555-0696
Date:	5/26/87	Date:	2/23/87

Figure 7-18 A printed report in row format, left to right order

Card Name:	*Card 1*	Card Name:	*Card 2*
Name and Address:	Steve Aaron 2260 Oak Creek Drive	Name and Address:	Katie Aichler 9424 Middlefield Road
Phone Number:	555-7806	Phone Number:	555-4844
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 3*	Card Name:	*Card 4*
Name and Address:	Martha Belion 8495 Jefferson St	Name and Address:	Marti Belisle 3703 Maude Ave
Phone Number:	555-0934	Phone Number:	555-8203
Date:	2/23/87	Date:	5/26/87
Card Name:	*Card 5*	Card Name:	*Card 6*
Name and Address:	Roger Benrey 9541 Mount Vernon Dr	Name and Address:	Loween Blank 6686 Martin Ave Praine, Texas
Phone Number:	555-3005	Phone Number:	(214) 555-5456
Date:	2/23/87	Date:	2/23/87
Card Name:	*Card 7*	Card Name:	*Card 8*
Name and Address:	Richard Boyd 6686 Black Mou	Name and Address:	Shannon Browne 7814 Olive Ave
Phone Number:	555-6080	Phone Numb	555-1765
Date:	2/23/87	Date:	2/23/87

Manual paper feed

Check the manual paper feed box if you're feeding paper by hand; HyperCard will stop the printer after each sheet and wait for you to add more paper.

Header

Tab to the Header box and type what you want to appear as a heading at the top of each sheet. Click the proper icon(s) after you tab to add page numbers, the date, the current time, and the stack name to the header. Click icons in the order you want them to appear in the heading. (Use the space bar to separate them.) You can preview what the header will produce by looking in the minipage window.

Format remembered

Once you print a report, HyperCard remembers the format and header you used for that stack's report so you can use the same setup next time you print.

Quit HyperCard

Quit HyperCard (or Command-Q) leaves HyperCard, automatically saving any changes you've made.

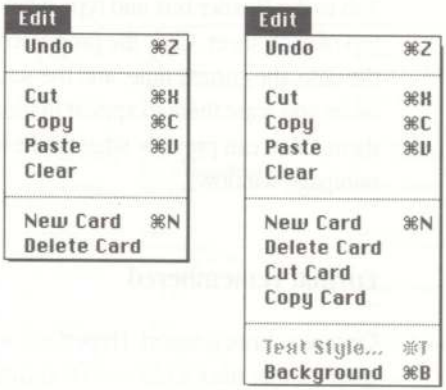
Edit menu

The Edit menu lets you change your work. Undo, Cut, Copy, Paste, and Clear all work as they're described in the *Macintosh System Software User's Guide* (or your Macintosh owner's guide). The other commands are unique to HyperCard.

The different Edit menus

The level set on the User Preferences card of the Home stack, in conjunction with the protection level set for a particular stack, determines which Edit menu appears when you press Edit. If either level is set to Browsing or Typing, you choose a command from the short menu (left in Figure 7–19). Otherwise you choose from a full menu (right in Figure 7-19).

Figure 7-19 Short and full Edit menus



For information on user levels, see "User Preferences" in Chapter 4. For information on individual stack protection, see "Protect Stack" earlier in this chapter.

Undo

Undo (or Command-Z) undoes your last action on a card or background. Use it when you make a mistake or when you change your mind about some action.

With the Paint tools, pressing Tilde (~) or Escape is the same as choosing Undo.

Cut

Cut (or Command-X) removes the selected information from the card or background and puts it on the Clipboard. Use Cut when you want to move something from one place to another.

Cutting a picture

When you're using a Paint tool, Cut affects either the background picture or the card picture, depending on whether the Background command in the Edit menu is checked or unchecked.

Follow these steps to cut a picture:

1. **Select the portion of the picture you want to cut.**

   Use either the Lasso or the Selection tool to do it. (See "Lasso" and "Selection Tool," later in this chapter.)

2. **Choose Cut from the Edit menu.**

   You can also press Command-X.

Cutting buttons and fields

When you cut a button, you also cut its associated actions. If you paste the button, you paste its actions along with it.

Important Buttons and the pictures representing them are often separate. This is always the case if a button is transparent. Remember to cut and paste the picture as well as the button. (You'll have to cut and paste them separately.)

When you cut a field, all text and attributes (field name, font, and so on) belonging to that field are cut along with it. If you paste back that field in the same or another stack, you also paste back its attributes, but not its text.

To cut a button or a field:

1. **Select the button or field tool.**
2. **Click the specific button or field you want to cut.**
3. **Choose Cut from the Edit menu (or press Command-X).**

Cutting a card

To cut a card:

1. **Move to the card you want to cut.**

2. **Choose Cut Card from the Edit menu.**

When you cut a card, you cut everything on it—picture, fields, text, buttons, actions, and a copy of that card's background.

Cutting a background

You can't cut a background. To remove a background from a stack, you must delete every card that uses that background. If there is only one card in the stack, you must delete the stack.

Copy

Copy (or Command-C) makes a copy of the selected information and puts it on the Clipboard. The selected information is left unaffected (but whatever was on the Clipboard is replaced). If you're using a Paint tool and nothing is selected, all the Paint information is copied.

Copying a picture

When you're using a Paint tool, Copy gets its information from either the background picture or the card picture, depending on whether the Background command in the Edit menu is checked or unchecked.

To copy a picture:

1. **Select the portion of the picture you want to Copy.**

   Use either the Lasso or the Selection tool to do it. (See "Lasso" and "Selection Tool," later in this chapter.)

2. **Choose Copy Picture from the Edit menu.**

   You can also press Command-C.

3. **Move to the card where you want the copied picture to appear.**

   Moving between cards or stacks doesn't affect what's on the Clipboard, the holding place for what you copied.

4. **Choose Paste Picture from the Edit menu.**

   Or press Command-V. The copied picture appears.

5. **Drag the picture where you want it to be on the card.**

6. **Click anywhere outside the pasted area.**

Copying buttons and fields

When you copy a button, you also copy its actions. If you paste the button, you paste its actions along with it.

Important Buttons and the pictures representing them are often separate. This is always the case if a button is transparent. Remember to copy the picture as well as the button. (You'll have to copy them separately.)

Follow these steps to copy a button or a field:

1. **Select the button or field tool.**

2. **Click the specific button or field you want to copy.**

3. **Choose Copy Button or Copy Field from the Edit menu (or press Command-C).**

4. **Move to the card where you want the copied button or field to appear.**

   Moving between cards or stacks doesn't affect what's on the Clipboard, the holding place for what you copied.

5. **Choose Paste Button or Paste Field from the Edit menu.**

   Or press Command-V. The copied button or field appears.

   If you're pasting a field, pressing Command-Shift-V pastes the text along with the field.

6. **Drag the button or field where you want it to be on the card.**

7. **Click anywhere outside the pasted area.**

Copying a card

To copy a card:

1. **Choose Copy Card from the Edit menu.**

   A copy of the current card is placed onto the Clipboard.

2. **Move to the card after which you want the copied card to appear.**

   It can be in the current stack or in any other stack.

3. **Choose Paste Card from the Edit menu.**

   Or press Command-V. The pasted card becomes the current card.

To change a card's position so that it's first in a stack:

1. **Move to the card whose position you want to change.**

2. **Choose Cut Card from the Edit menu.**

3. **Choose First on the Go menu.**

   Or press Command-1. The first card in the stack appears.

4. **Choose Paste Card on the Edit menu.**

   Or press Command-V. The pasted card appears on the screen; it is now the second card in the stack.

5. **Choose First on the Go menu again.**

   Or press Command-1. The first card in the stack appears.

6. **Choose Cut Card on the Edit menu.**

   The card you had originally set out to reposition is now first in the stack.

7. **Choose Paste Card on the Edit menu.**

   (Or press Command-V.) The original first card is now second in the stack.

When you copy a card, you copy everything associated with it—background, picture, fields, text, buttons, and actions.

Copying a background

You copy a background by copying the card that has the background you want. (A copied card takes everything with it.)

To copy a background, follow these steps:

1. **Copy a card that has the background you want.**

2. **Move to where you want the new background.**

3. **Paste the copied card.**

4. **Make new cards based on the copied card's background.**

5. **Delete the original pasted card.**

You can't replace an existing card's background.

Paste

Paste (or Command-V) takes a copy of the material that's on the Clipboard and puts it on the screen.

- If the material is regular text, it appears at the insertion point of a field you've chosen.
- If the material is a picture, it appears at the screen position at which it was cut.
- If the material is a field or button, it appears at the screen position at which it was cut. (You can move a pasted selection by dragging within the selection.) Pasted buttons and fields retain all their original actions.
- If the material is a card, it appears after the current card in the stack. A pasted card pastes its background as well (assuming the background is different from the ones surrounding it).

When you're using a Paint tool, the material you're about to paste can be text or a picture. If the material is regular text (that is, text created with the Text tool), shrinking the selection by dragging the corners with the Command key pressed makes more or less of the text appear. (The text wraps at the right border of the selection.) The text becomes a picture after you've pasted it and clicked outside the selected area.

Pictures are pasted in opaque; if you want the background to show through, choose Transparent from the Paint menu after you've pasted onto the card, but *before* you've clicked outside the pasted area to make the changes complete.

Pasting a card in miniature

You can paste a picture of a card in miniature, like the cards that appear when you choose Recent from the Go menu. Follow these steps to paste a miniature:

1. **Choose Copy Card or Cut Card from the Edit menu.**
2. **Move to the card where you want to paste the miniature.**
3. **Press and hold the Shift key while you choose Paste Card.**

   Alternately, press Command-Shift-V.

The miniature appears selected in the center of the screen.

Note that this is a picture of a card—none of the actions from the original card come with the miniature.

Clear

Clear removes the selected information without putting it on the Clipboard or affecting what's already on the Clipboard.

When you're using a Paint tool, Clear affects either the selected background picture or the selected card picture, depending on whether the Background command in the Edit menu is checked or unchecked.

When the Message box is visible and the insertion point is not visible, Clear empties the Message box and puts the insertion point in it.

Pressing the Delete or Backspace key (or the Clear key on the keypad) has the same effect as Clear.

New Card

New Card (or Command-N) adds a card to the current stack. The new card automatically picks up the background picture, background buttons, and fields of the card you're looking at.

The new card is inserted immediately after the card you were looking at. You end up looking at the card you just inserted.

To make the new card the first one in the stack:

1. **Choose First on the Go menu.**

   Or press Command-1. The first card in the stack appears.

2. **Choose New Card on the Edit menu.**

   Or press Command-N. The new card appears on the screen; it is now the second card in the stack.

3. **Choose First on the Go menu again.**

   Or press Command-1. The first card in the stack appears again.

4. **Choose Cut Card on the Edit menu.**

   The card you had originally set out to reposition is now first in the stack.

If you want to place the cut card back into the stack, you need to follow two more steps:

1. **Move to the card you want to come immediately before the one you've just cut.**

2. **Choose Paste Card on the Edit menu.**

   Or press Command-V.

The pasted card appears on the screen in its new position in the stack.

Delete Card

Delete Card (or Command-Backspace or Command-Clear) permanently eliminates the current card. Delete Card works exactly like Cut Card, except that the deleted card does not go onto the Clipboard and so cannot be pasted anywhere.

You can't delete the only card in a stack. If there's only one card in the stack and you want to delete it, use Delete Stack from the Stack menu.

Cut Card

Cut Card (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) removes the card on the screen, deletes it from the stack, and puts up the next card in the stack. HyperCard doesn't ask you to confirm the cut—it just does it.

You can't cut the last card in a stack. To cut the last card, use Delete Stack from the Stack menu.

Copy Card

Copy Card (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) makes a copy of the current card and puts it on the Clipboard. Whatever was on the Clipboard is replaced.

When you copy a card, you copy everything associated with it—background, picture, fields, text, buttons, and actions.

Text Style...

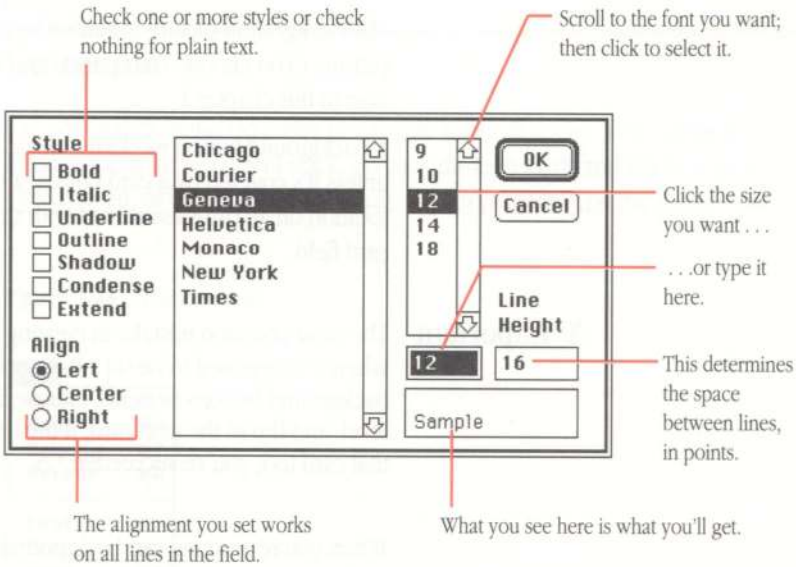
Text Style, or Command-T, (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) lets you set text properties for the active field or the active **Paint text.** (Paint text is text created using the Paint Text tool.) Paint text is active until you

- switch tools after you've typed,
- click the mouse,
- leave the card, or
- switch into or out of the background.

A field is active if the insertion point is in it.

A dialog box appears, letting you choose text font, style, alignment, size, and the height of each line in points.

Figure 7-20 The Text Style dialog box



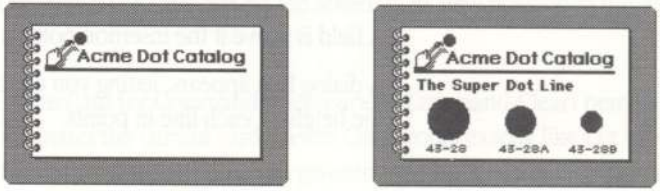
For more information, see "Setting Text Properties" in Chapter 5.

Background

Background, or Command-B, (available only when Painting, Authoring, or Scripting is checked in the User Preferences card of the Home stack) lets you edit the background picture and create background buttons and fields.

The background serves as a template; whatever's in the background is common to all cards associated with that background.

Figure 7-21 Background versus card



Background alone

With transparent card picture

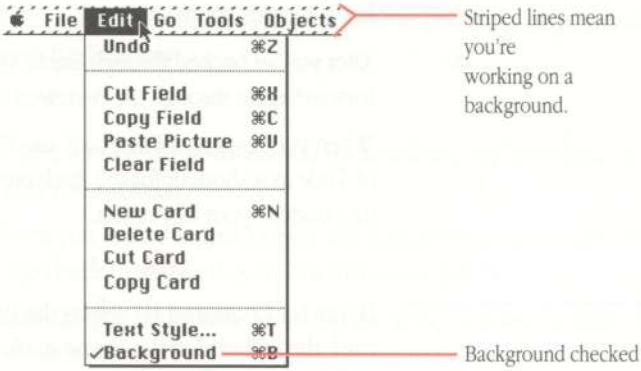
The background picture is hidden by any black or opaque portions of the card picture. (You choose Transparent and Opaque from the Paint menu, described later in this chapter.)

A background button works for all cards associated with that background, unless it's covered by a card button; a background field appears in the same location on all cards associated with that background, unless it's covered by a card field.

Δ Important The most common mistake in creating a button or a field is putting it on a card when it's supposed to be on a background. After you've created one or more background buttons or fields, choose Background again to get back to the Card level, and flip to the next card; if the buttons or fields you've just created are on that card too, you've succeeded. Δ

When you're working in a background, the menu bar is striped, and a check mark appears to the left of the Background command in the Edit menu. (See Figure 7-22.)

Figure 7-22 The Menu bar is striped while working in a background

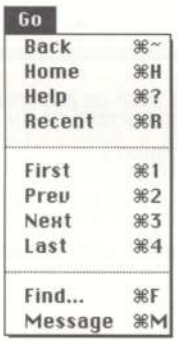


There's no limit (beyond disk space) to the number of backgrounds a stack can have.

Go menu

Use commands in the Go menu to navigate through stacks. You can look through cards in the current stack, go back through cards and stacks you've already seen, or immediately get to any stack represented on the Home card.

Figure 7-23 The Go menu



Back

The Back command (or Tilde, Esc, or Down Arrow) takes you to the most recent card you've viewed. Keep choosing this command to review up to the last 100 cards you've seen.

After you've backed through cards, you can press the Up Arrow key to come forward again through the reviewed cards.

When you're using a Paint tool, use Command-Tilde (or Command-Esc) instead of Tilde as a shortcut for the Back commands. (Pressing Tilde alone in a Paint tool undoes your last action.)

Home

Home (or Command-H) selects the Browse tool and takes you to the Home card, the first card in the Home stack. The Home card is special—it's meant to hold buttons that bring you to the most important cards in your collection.

Figure 7-24 The Home card

To go to any stack represented on the Home card, click its picture. (Each picture is actually a button.)

For more details about the Home card and the rest of the Home stack, see Chapter 4.

Help

Help (or Command-?) takes you to the first card in the Help system. The Help system describes everything in HyperCard.

When you use Command-? as a shortcut to choosing Help, you don't have to press the Shift key.

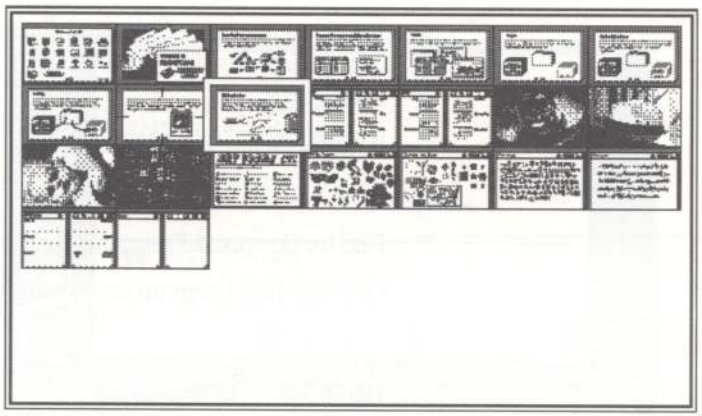
Recent

Recent (or Command-R) lets you backtrack through any or all of the last 42 cards you viewed.

When you look at a card, HyperCard puts a miniature picture of it on Recent. To go back to that card, just click that card's picture.

Although you might have looked at the same card several times, Recent holds only one picture of it.

Figure 7-25 Recent—click any image to go to that card



Tilde key

You can go back through the last 100 cards you viewed in the order that you viewed them by using the Back command (or by pressing Tilde), described earlier in this section.

To return to the card you most recently viewed, click the picture of the card with the box around it or press Return.

First

First (Command–1 or Command–Left Arrow) takes you to the first card in the current stack.

If you're already at the first card, First does nothing.

Prev

Prev (Command-2 or Left Arrow) takes you to the previous card in the current stack. If you're at the first card in the stack, Prev wraps you around to the last card in the stack.

- *Prev isn't Back:* Prev takes you to the previous card in the current stack; Back takes you to the card you last looked at. The last card you looked at might have been in another stack.

Next

Next (Command-3 or Right Arrow) takes you to the next card in the current stack. If you're at the last card, Next wraps you around to the first card.

Last

Last (Command–4 or Command–Right Arrow) takes you to the last card in the current stack. Use last when you want to create a new card at the end of the stack.

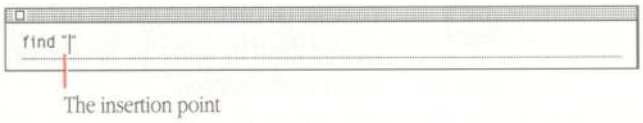
If you're already at the last card, Last does nothing.

Find...

Find (or Command-F) searches for text in the fields of the current stack.

Choosing Find brings up the Message box, as it appears in Figure 7-26.

Figure 7-26 The Message box



To search for text, follow these steps:

1. **Choose Find from the Go menu.**

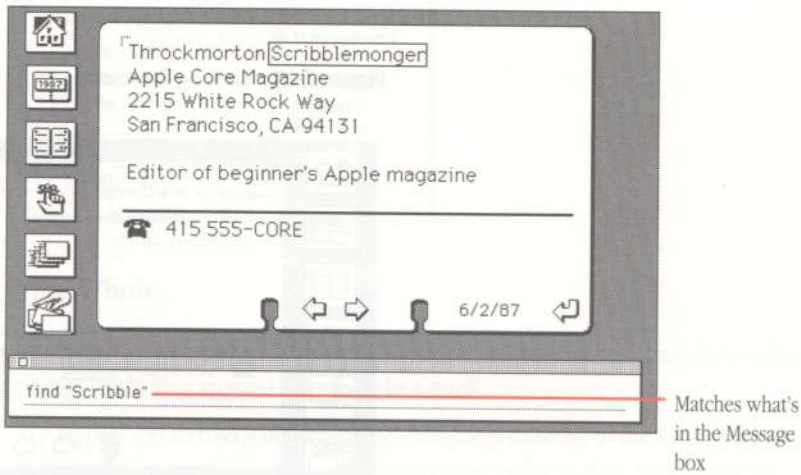
2. **Type what you want to find.**

   Or press the Command key as you select up to a line of characters from any text field. (A box appears around the text as you select it.)

3. **Press Return or Enter.**

HyperCard searches the current stack for a series of characters in any field that begins with what's in the Message box. HyperCard looks for the first card that contains everything between the quotation marks, even if the words appear in a different order.

Figure 7-27 Finding a name



Pressing Return after a search makes HyperCard repeat the search.

If you choose Find again after an initial search, HyperTalk selects what you've typed between the quotation marks. To replace what's in the Message box, just type something new.

- *Watch those quotation marks:* The text that you want to find must appear between quotation marks after the word "find."

To cancel a search-in-progress, press Command-period (.).

If HyperCard can't find the text, the Macintosh beeps.

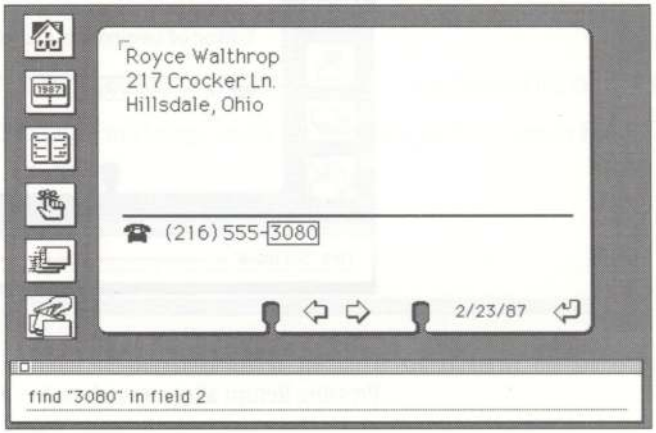
Searching in a specific field

HyperCard automatically searches through all the fields on all the cards in the current stack. You can limit the search to one specific background field.

To limit the search to a specific field, click after the last quotation mark and type a space, the words `in field`, and the field number or name.

Figure 7-28 shows an example.

Figure 7-28 Limiting the search



To find the name or number of a field, click in the field with the Browse tool selected and choose Field Info from the Objects menu.

Alternatively, take the following steps:

1. **Click the Field tool.**

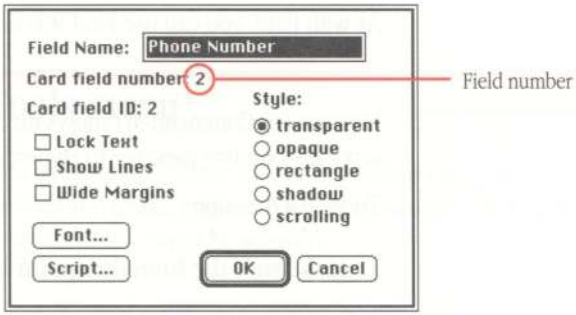
   To use the Field tool, you must have Authoring or Scripting checked on the User Preferences card in the Home stack.

2. **Click the field whose name or number you want to know.**

3. **Choose Field Info from the Objects menu.**

   Or just double-click in the field you're interested in.

Figure 7-29 Finding out a field's number



Find Whole

Find Whole (or Command-Shift-F) lets you search for a specific whole word or phrase (including spaces) anywhere in a stack.

For HyperCard to find a match, all the characters must be in the same field on a card, and they must be in the same consecutive order as they appear in Find Whole's argument:

```
Find Whole "Apple Computer"
```

The command shown above tells HyperCard to find cards that have the phrase "Apple Computer" on them; it won't find "Apple Computers" or "This apple is a computer." (The Find command without Whole would find matches for all three cases.)

Find Whole won't stop on cards that have only partial matches: for example,

```
Find Whole "Ed"
```

won't match "Edward."

Find Whole pays no attention to case or to diacritical marks when it looks for matches: "apple Cømpüter," "apple computer," and "Apple Computer" are all considered the same by this command.

When you use the Find command without Whole, HyperCard looks for cards that contain everything between the quotation marks, even if the words appear in a different order or in different fields.

As with Find, you can use Find Whole to search in a specific background field.

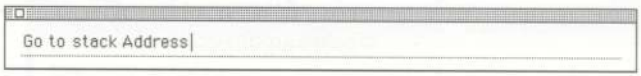
Message

Message (or Command-M) shows the Message box. Use the Message box to send any one-line message to HyperCard.

To send a message:

1. **Make sure the insertion point is in the box by clicking in it.**
2. **Type the message.**
3. **Press Enter or Return.**

Figure 7-30 Sending a message



To stop a message-in-progress, press Command-period (.).

To clear the Message box so you can use it again, do any of the following:

- Choose Message box again from the Go menu.
- Press Command-M.
- Select all the text in it and press Clear or Backspace.
- Select all the text in it and type a new message.

To hide the Message box, click its close box (or press Command-M).

To type messages into the Message box when the box isn't visible, check Blind Typing on the User Preferences card in the Home stack.

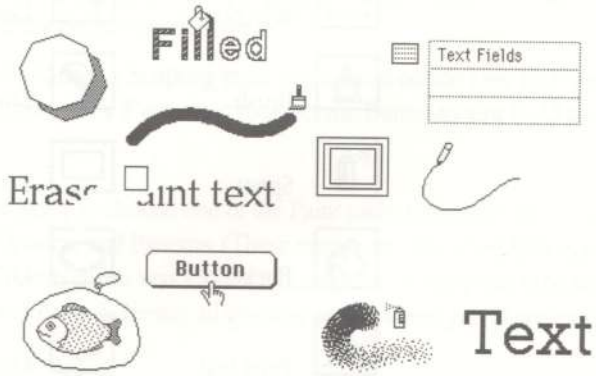
See Appendix A for a list of the most common HyperCard messages.

For detailed information on all HyperCard messages and other advanced HyperCard topics, see the *HyperCard Script Language Guide* (available from Addison-Wesley Publishing Company).

Tools menu

You use tools to browse, to edit text and pictures, and to create and change buttons and fields. You can have only one tool selected at a time. One tool—any tool—must be selected.

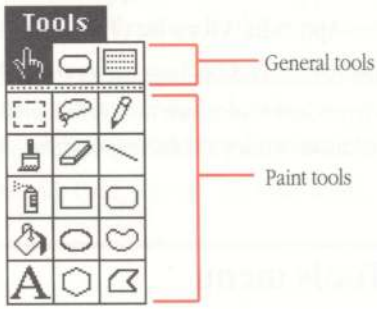
Figure 7-31 Tools in action



The Tools menu appears when Painting, Authoring, or Scripting is checked on the User Preferences card in the Home stack.

The Tools menu holds the General and Paint tools. General tools are on the menu's top line; they control browsing, text creating and editing, and button creating and selecting. Paint tools, which fill the rest of the menu, control creating and editing pictures.

Figure 7-32 General tools and Paint tools



■ **Table 7-3** Tool names

Browse	Button	Field
Selection	Lasso	Pencil
Brush	Eraser	Line
Spray	Rectangle	Rounded Rectangle
Bucket	Oval	Regular Polygon
Paint text	Curve	Polygon

You can "tear off" the Tools menu, creating a movable tools palette.

To create a movable Tools palette, drag down through the menu, either past the bottom or beyond either side. You can also press Option-Tab to make a Tools palette appear and disappear.

Put the palette wherever you want.

Figure 7-33 Using the Tools palette

To put it away, click its close box. To move the palette around, grab it by its top bar or by any edge. To select a tool, click it. (You can also select a tool from the Tools menu in the Menu bar, even if you have a palette torn off; the palette will reflect the menu selection.)

To select a tool, click inside the box that holds it. The tool you select becomes highlighted in the menu, and, depending on the tool you've selected, the shape of the pointer might change.

Authoring or Scripting must be checked on the User Preferences card in the Home stack if you want to select the Button tool or Field tool.

Menu bar changes

When you choose one of the Paint tools, three new menus appear—Paint, Options, and Patterns. (These menus are described later in this chapter.) If the Objects menu was visible, it disappears; it reappears (and the Paint, Options, and Patterns menus all go away again) when you choose a General tool.

Browse tool

When you select the Browse tool, the pointer becomes a hand with the first finger extended. Use the Browse tool to click buttons, to edit text, and to select text for searching. The Browse tool converts to an I-beam when it's over editable text when any level except Browsing is checked on the User Preferences card in the Home stack.

In its I-beam shape, the pointer lets you type and edit text in fields. Click in the field where you want to type. Chapter 5 gives detailed information about text fields and editing text.

To learn about editing text in the Macintosh, see the *Macintosh System Software User's Guide* or your Macintosh owner's guide.

For a detailed tutorial on browsing and editing, see Chapter 2, "Browsing and Editing."

For information on typing text not limited to fields, see "Paint Text Tool," later in this chapter.

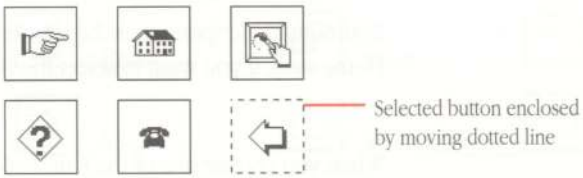
Button tool

Use the Button tool to make new buttons or to see buttons that already exist.

To use the Button tool, make sure that Authoring or Scripting is checked on the User Preferences card in the Home stack.

When you choose the Button tool, the buttons on the card and the card's background appear surrounded by a thin-lined box; a selected button is surrounded by a moving dotted line.

Figure 7-34 Buttons with the Button tool selected



To create a button, choose New Button in the Objects menu. Alternatively, select the Button tool; then press the Command key and drag diagonally.

To create a button that appears automatically on all cards that share a particular background, follow these steps:

1. **Choose Background from the Edit menu.**

2. **Choose New Button in the Objects menu.**

   Alternatively, select the Button tool, press the Command key, and drag diagonally.

Important The most common mistake in creating a button is putting it on a card when it's supposed to be on a background. After you've created one or more buttons, flip to the next card; if the buttons you've just created are on that card too, you've created background buttons.

To select a button:

1. **Select the Button tool.**

2. **Click the button you want to select.**

To size a selected button, drag by any corner.

To move a selected button, drag by any edge; or place the pointer inside the button and drag.

To duplicate a selected button, press Option while you drag.

To copy a button, select it and choose Copy Button from the Edit menu (or press Command-C).

To cut a button, select it and choose Cut Button from the Edit menu (or press Command-X).

To eliminate the button without affecting the Clipboard, select it and choose Clear Button from the Edit menu (or press Backspace or the Clear key).

- *Browse tool versus Button tool:* You must be using the Browse tool to click buttons. After you've created a button and you want to test it, be sure to select the Browse tool first.

To bring up information about a particular button:

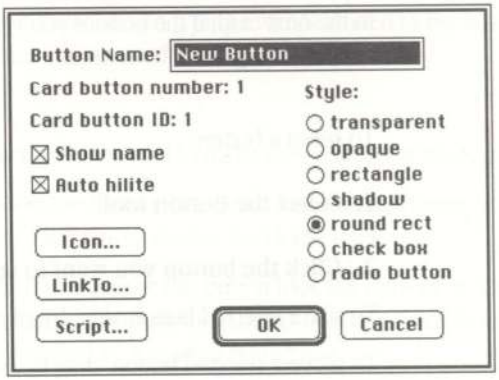
1. **Select the Button tool.**

2. **Click the button you're interested in.**

3. **Choose Button Info from the Objects menu.**

   (Alternately, choose the button tool and double-click the button you're interested in.) The Button Info dialog box appears. (See Figure 7-35.)

Figure 7-35 The New Button dialog box



To see all the buttons on a card and the background when the Button tool is not selected, press the Command key and the Option key at the same time.

To read about labeled buttons and buttons with different shapes (and to get detailed information about the dialog box in Figure 7-35), see "Button Info" in the Objects Menu section of this chapter.

Field tool

Use the Field tool to create and change text fields. You can have fields on a specific card as well as fields common to all cards associated with a given background.

To use the Field tool, make sure that Authoring or Scripting is checked on the User Preferences card in the Home stack.

You can have as many fields on a card or a background as will fit. The number of lines in a field depends on that field's physical size, the point size of the text within the field, and the height of a single line within the field. See the Line Height box in the Text Style dialog box, shown in Figure 7-20 (earlier in this chapter).

To create a field, choose New Field from the Objects menu. Alternatively, select the Field tool; then position the pointer and, while holding down the Command key, drag diagonally.

To create a field for every card associated with a particular background:

1. **Choose Background from the Edit menu.**

2. **Choose New Field from the Objects menu.**

   Alternatively, select the Field tool, press the Command key, and drag diagonally.

Δ Important The most common mistake in creating a field is putting it on a card when it's supposed to be on a background. After you've created one or more fields, flip to the next card; if the fields you've just created are on that card too, you've created background fields. Δ

To select a field:

1. **Click the field tool to select it.**

2. **Click inside the field you want to select.**

To size a selected field, drag by any corner.

To move a selected field, drag by any edge; or place the pointer inside the field and drag.

To duplicate a selected field, press Option while you drag.

To copy a field, select it and choose Copy Field from the Edit menu (or press Command-C).

To cut a field and all its accompanying text, select the field and choose Cut Field from the Edit menu (or press Command-X).

To eliminate the field without affecting the Clipboard, select it and choose Clear Field from the Edit menu (or press Backspace or the Clear key).

▲ **Warning** Deleting a background field also deletes all text in that field on all cards sharing that background. Once you've deleted the field, it and all its text are gone for good—you can't undo the deletion. ▲

To bring up information about a particular field, follow these steps:

1. **Click the field tool to select it.**

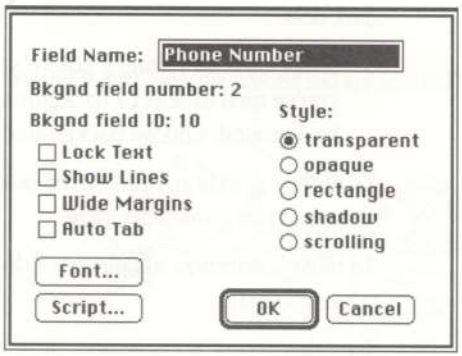
2. **Click the field you're interested in.**

3. **Choose Field Info from the Objects menu.**

   Or just double-click the field you're interested in. The dialog box in Figure 7-36 appears.

Alternatively, move the insertion point to the field you want to know about and choose Field Info from the Objects menu.

Figure 7-36 The New Field dialog box



For details about the dialog box in Figure 7-36, see "Field Info," later in this chapter.

For information about fields and their uses, see "Fields" in Chapter 5.

Selection tool

Use the Selection tool to select a rectangular area of a picture. Drag diagonally to select.

To select the whole picture, double-click the Selection tool on the torn-off Tools palette. (You can also choose Select All from the Paint menu.)

To shrink the selection area to the outer perimeters of the object you're selecting, press the Command key while you drag; when you release the mouse button, the rectangle closes in and eliminates extra white space.

Figure 7-37 Eliminating extra white space in a selection

Press the Command key as you drag . . .

. . . to eliminate extra white space in the selection

For an even tighter selection, press Option as you drag (or Command-S after you drag) to convert the rectangle to a lasso and to close in on the selection's dark dots.

- *Select, but can't drag:* If you've selected a picture but you can't drag it, you've tried to select a background picture without being in the background. Choose Background from the Edit menu and try again.

To move a selection, position the pointer inside the selection until the pointer changes to an arrow; then drag.

To move a selection straight up or down or directly left or right, press Shift while you drag.

To make a copy of a selection, press Option while you drag.

To make multiple copies, press Command-Option while you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To stretch or shrink a selection, press Command while you drag from a corner.

Figure 7-38 A shrunk and stretched selection

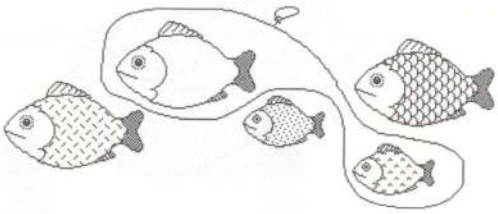
Original Shrunk Stretched

To stretch or shrink straight up and down or straight left and right, drag from any edge.

Lasso

Use the Lasso to select a specific part of a picture when the area's too small for the Select tool or when you need to scoot around nonrectangular images.

Figure 7-39 Only the lassoed fish are selected



To use the Lasso, drag around the area you want. (The line trailing out of the lasso's tip shows you what you're lassoing.) When you release the mouse button, the lasso hugs the part of the picture it surrounds and selects it. (The lasso shrinks until it finds black dots.) The edges of the lassoed area will shimmer.

To lasso an area without shrinking around black dots, press Option as you drag.

To lasso an area that has no breaks in it (one surrounded by an unbroken line, or one composed entirely of connected black dots), move the lasso's tip into it, press the Command key, and click the mouse. This technique is especially handy for selecting small areas.

To lasso each element in the picture (ignoring any unenclosed white space), double-click the Lasso in the torn-off Tools palette.

To move a selection, position the lasso's tip within the selection until the lasso changes to an arrow; then drag.

To move a selection straight up or down or directly left or right, press Shift while you drag.

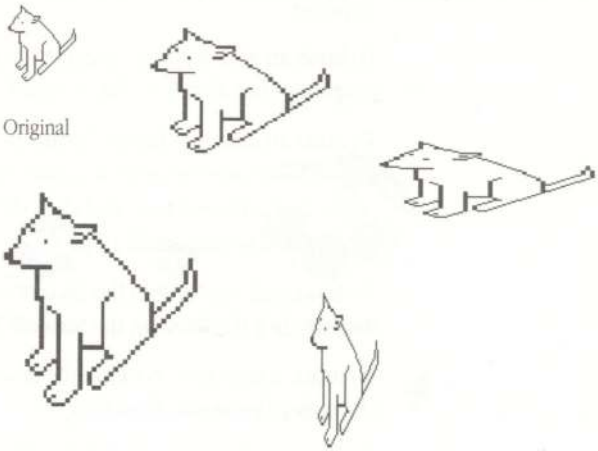
To make a copy of a selection, press Option while you drag.

To make multiple copies, press Command-Option while you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

Figure 7-40 Multiple copies

To stretch or shrink a selection, press Command while you drag from an edge.

Figure 7-41 A stretched and enlarged selection



Pencil

Use the Pencil to draw thin (one dot wide) free-form lines. Most people find it the most useful tool for doing detailed work in FatBits.

Pencil draws in the opposite color of the first place you press the Mouse button. (See Figure 7-42.)

Figure 7-42 Drawing in the opposite color

Starting on black draws in white.

Starting on white draws in black.

To draw straight horizontal or vertical lines, press the Shift key while you drag.

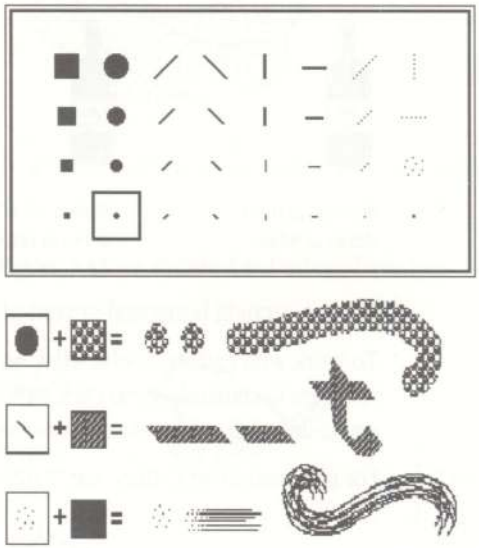
To work with FatBits, double-click on the Pencil on the torn-off Tools palette (or press Command as you click with the Pencil selected). Click to make a single dot; click on an existing dot to erase it.

For information on FatBits, see "FatBits" in the Options menu section of this chapter.

Brush

Use the Brush to paint with the current pattern. Bring up a dialog box of brush shapes and sizes by choosing Brush Shape from the Options menu (or just double-click Brush); then click the one you want. Different shapes create different effects.

Figure 7-43 Different brush shapes create different effects when you paint



To paint straight vertical or horizontal lines, press Shift while you drag.

To erase instead of paint with a brush shape, press Command while you drag. Change the brush shape to change the shape of the "brush-eraser."

Eraser

The Eraser wipes out the part of a picture you drag over.

To erase the whole picture, double-click the Eraser. HyperCard wipes out the picture, and then selects the tool you were using just before you double-clicked the Eraser. (Choose Undo from the Edit menu, or Revert from the Paint menu, if you double-click by accident.)

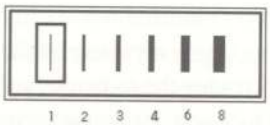
- *Magic appearances:* If you see a picture appearing under the eraser as you drag the eraser over a card picture, you're exposing a covered background picture. To erase with white paint (which prevents the background picture from appearing), press the Command key as you drag.

Line tool

Use the Line tool to draw straight lines. Drag to draw lines in black; press Option while you drag to draw lines in the selected pattern. (See "Patterns Menu," later in this chapter.)

To change line thickness, choose Line Size from the Options menu (or double-click the Lines tool on the torn-off Tools palette) and click one of the choices. Or press 1 through 8 with Power Keys checked on the Options menu for lines that many dots wide (5 gives the same line thickness as 4, 7 gives the same line thickness as 6). To keep the current line thickness, click the highlighted choice.

Figure 7-44 Line and border width



To change the angle of a line, with the mouse button still pressed move the mouse in another direction as you're creating the line.

To constrain angle changes to 15° increments, press Shift while you drag.

To draw a line centered on a given point, choose Draw Centered from the Options menu before you drag.

To draw a line with a multiple image of itself, choose Draw Multiple from the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

For information about power keys, see "Options Menu," later in this chapter.

Spray tool

Use the Spray tool to spritz paint onto the screen in the selected pattern. The more you spray back and forth over the same area, the more the pattern becomes apparent.

To spray straight vertical or horizontal lines, press Shift while you drag.

To erase with the Spray tool, press Command while you drag.

Rectangle tool

The Rectangle tool draws rectangles. To draw black-bordered rectangles, position the crossbar pointer where you want the rectangle to start; then draw diagonally.

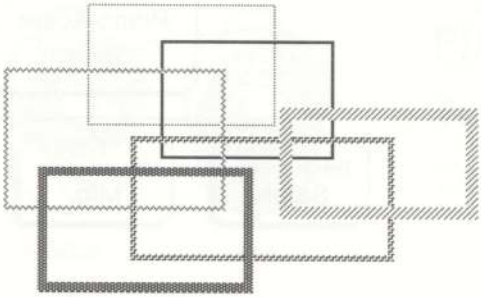
To change the thickness for a rectangle's border before you draw it, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices (as shown in Figure 7-44).

To place a rectangle while you're drawing it, first drag to create the rectangle, and then press Command *before* you release the mouse button. This allows you to drag the rectangle anywhere on the card. You can release the Command key to continue creating the rectangle, and press the Command key again to move the shape. Once you release the mouse button, you need to select the rectangle to move it.

To draw rectangles filled with the selected pattern, choose Draw Filled from the Options menu.

To draw with borders in the selected pattern, press Option as you start to drag.

Figure 7-45 Rectangles with patterned borders



A thick line lets you draw borders in the current pattern.

To draw centered on a given point, choose Draw Centered from the Options menu before you drag.

To draw borderless rectangles, choose Draw Filled from the Options menu and hold down the Option key as you drag.

To draw multiple rectangles, choose Draw Multiple from the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To draw squares, hold down the Shift key while you drag.

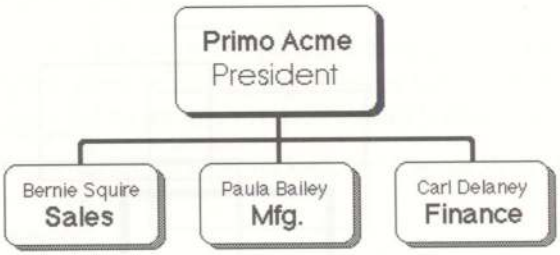
Rounded Rectangle tool

The Rounded Rectangle tool draws rectangles with rounded corners. To draw black-bordered rounded rectangles, position the pointer where you want the rectangle to start; then draw diagonally.

To place a rounded rectangle while you're drawing it, first drag to create the shape, and then press Command *before* you release the mouse button. This allows you to drag the shape anywhere on the card. You can release the Command key to continue creating the shape, and press the Command key again to move the shape. Once you release the mouse button, you have to select the rounded rectangle to move it again.

To draw borders using the current pattern, hold down the Option key while you drag.

Figure 7-46 Creating and combining rounded rectangles



To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 with Power Keys checked on the Options menu for increasingly thicker lines.

To draw rounded rectangles filled with the selected pattern, choose Draw Filled in the Options menu before you drag. (Double-click this tool to toggle Draw Filled on and off.)

To draw centered on a given point, choose Draw Centered on the Options menu before you drag.

To draw with a multiple image, choose Draw Multiple on the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To draw squares with rounded corners, press Shift while you drag.

Bucket

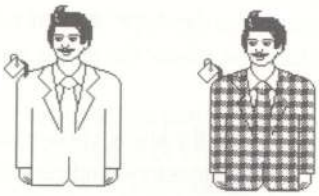
Use the Bucket to fill solid black and enclosed white areas (including the hollow parts of outlined and shadowed letters) with the selected pattern.

Figure 7-47 Using the Bucket

Before After

If there are any gaps in the outline surrounding an area, paint will spill out and fill the surrounding area as well. (You can use FatBits to check for gaps.)

Figure 7-48 Paint spilled in enclosed and unenclosed areas



Before After

You can't use the Bucket to fill a dark area (as opposed to a black area) with a lighter color. Instead, select the area and use Fill from the Paint menu.

- *Cleaning up accidental spills:* If you accidentally fill your screen with paint, immediately choose Undo from the Edit menu; then check carefully for gaps in your drawing before using the Bucket again.
- *Bucket short cut:* Double-click the Bucket to make the Patterns palette appear and disappear.

Oval tool

The Oval tool draws oval shapes. To draw black-bordered ovals, position the pointer where you want the oval to start; then drag diagonally.

To draw borders using the current pattern, hold down the Option key while you drag.

To draw circles, press Shift while you drag.

To draw centered on a given point, choose Draw Centered on the Options menu before you drag.

To draw filled with the current pattern, choose Draw Filled on the Options menu before you drag.

To draw with a multiple image, choose Draw Multiple on the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

To place the oval while you're drawing it, first drag to create the oval, and then press Command *before* you release the mouse button. This allows you to drag the shape anywhere on the card. You can release the Command key to continue creating the shape, and press the Command key again to move the shape. Once you release the mouse button, you have to select the oval to move it again.

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 (with Power Keys checked on the Options menu) for increasingly thicker lines (5 gives the same line thickness as 4, and 7 gives the same line thickness as 6).

Curve tool

Use this tool to draw free-form shapes. Drag to draw whatever shape you want.

If you draw with Draw Filled checked from the Options menu, HyperCard draws a straight line connecting the starting and ending points of the shape when you release the mouse button; then it fills the shape with the selected pattern. (Double-clicking the Curve tool toggles Draw Filled on and off.)

Figure 7-49 Drawing filled and unfilled shapes

Original art | Draw Filled unchecked | Draw Filled checked

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 with Power Keys checked from the Options menu for increasingly thicker lines (5 gives the same line thickness as 4, and 7 gives the same line thickness as 6).

To draw borders using the current pattern, hold down the Option key while you drag.

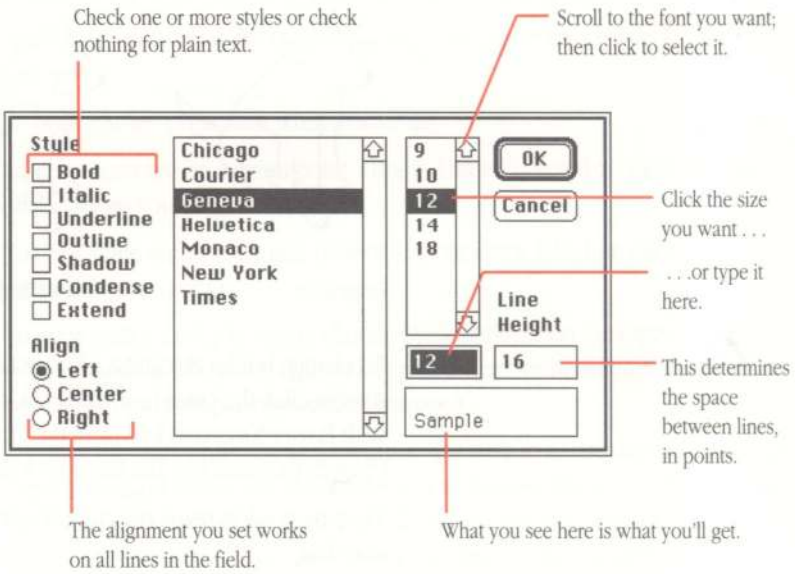
Paint Text tool

Use Paint Text to type text that's part of the picture. Paint text is especially useful as part of a background picture: use it for labels and titles that you want to show on many cards.

Set text attributes by choosing Text Style from the Edit menu or by double-clicking the Paint Text tool. The settings you make in the Text style dialog box (shown in Figure 7-50) stay in effect until you change them, or until you restart HyperCard.

Press Return to move down to a new line.

Figure 7-50 The Text Style dialog box



Text you type using this tool is different from text you enter into fields. You don't create a field in which Paint Text appears—you just position the cursor and click where you want the text to start, and then type. As soon as you confirm what you've typed (by clicking, choosing another tool, choosing Keep from the Paint menu, or moving to another card), the text becomes part of the picture—its attributes become fixed. To change an attribute or to edit text, you have to erase the old text and start again.

❖ *Quick text pickup tip:* To select text you've just finished typing, press Command-S.

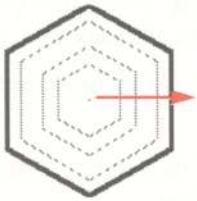
Δ Important You can't use the Find command to search for Paint Text. To HyperCard, Paint Text is just another picture. If you think that you'll want to search later for what you're typing now, create a field and enter text using the Browse tool. Δ

Each time you restart HyperCard, you reset the text attributes to 12-point plain Geneva with a line height of 16 dots, aligned left. This doesn't affect already-existing text.

Regular Polygon tool

The Regular Polygon tool creates polygons with regular sides. Unlike the other shape-making tools, Regular Polygon always starts drawing the shape from the center outwards (whether Draw Centered is checked or not on the Options menu).

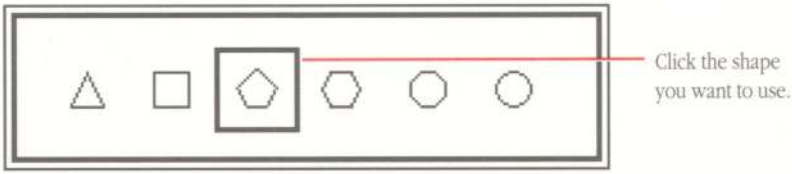
Figure 7-51 The Regular Polygon tool always draws as though you have Draw Centered turned on



The shape gets drawn from the center outward.

To choose the shape of the polygon, choose Polygon Sides from the Options menu (or double-click the tool). When the dialog box appears, click the shape you want. To keep the same shape, click the highlighted choice.

Figure 7-52 Double-click the Regular Polygon tool to select a shape



To create a shape, drag the mouse diagonally.

To rotate the shape, turn the mouse with the mouse button still pressed as you're creating the shape.

To constrain movement to 15° increments, press Shift as you rotate.

To place the polygon while you're drawing it, first drag to create the shape, and then press Command *before* you release the mouse button. This allows you to drag the polygon anywhere on the card. You can release the Command key to continue creating the shape, and press the Command key again to move the polygon. Once you release the mouse button, you need to select the polygon to move it again.

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 (with Power Keys checked on the Options menu) for increasingly thicker lines (5 gives the same line thickness as 4, and 7 gives the same line thickness as 6).

To draw borders using the current pattern, hold down the Option key while you drag.

To draw filled with the current pattern, choose Draw Filled from the Options menu before you drag.

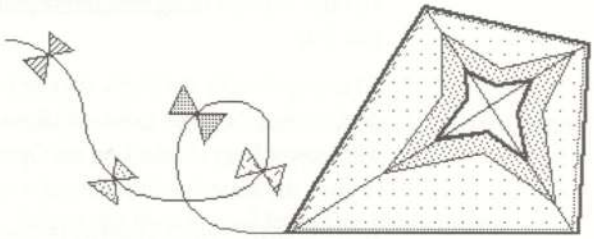
To draw with a multiple image, choose Draw Multiple from the Options menu before you drag. (Press the Option key plus a number between 1 and 8 before you drag to control spacing between images.)

Polygon tool

Use this tool to create polygons with irregular sides. This tool works differently from the others in that you don't hold the mouse button down to draw, and you double-click when you've finished the shape.

To draw, position the mouse where you want to begin; then click and release. Move the mouse until you've finished the first side, then click; roll out the second side, then click again; continue until you've finished all the sides, or double-click to end. (Clicking on the beginning point also ends the shape.)

Figure 7-53 Using the Polygon tool



- *Watch your double clicks:* After you've started drawing, clicking once on the starting point of the shape ends it. (Usually with this tool, you double-click to end a shape.) But if you double-click on the starting point after you've begun drawing, you'll end the first shape and start a second one.

If the Draw Filled command in the Options menu is checked, HyperCard draws a straight line between the polygon's starting and ending points when you double-click to finish your polygon, creating an enclosed shape. The shape is then filled with the current pattern.

Figure 7-54 Creating an enclosed polygon

To draw borders using the current pattern, hold down the Option key while you drag.

To change border thickness, choose Line Size from the Options menu (or double-click the Lines tool) and click one of the choices; or press 1 through 8 with Power Keys checked on the Options menu for increasingly thicker borders (5 gives the same line thickness as 4, and 7 gives the same line thickness as 6).

To draw shapes constrained to 15° angles, start the polygon with the Shift key pressed.

Objects menu

Use the Objects menu to create, examine, and change the actions of and information about HyperCard **objects**—buttons, fields, cards, backgrounds, and stacks.

To use the Objects menu, you must have the Browse, Button, or Field tool selected.

Figure 7-55 The Objects menu

Button Info

Button Info brings up information about the selected button. To use the Button Info command, follow these steps:

1. **Select the Button tool from the Tools menu.**

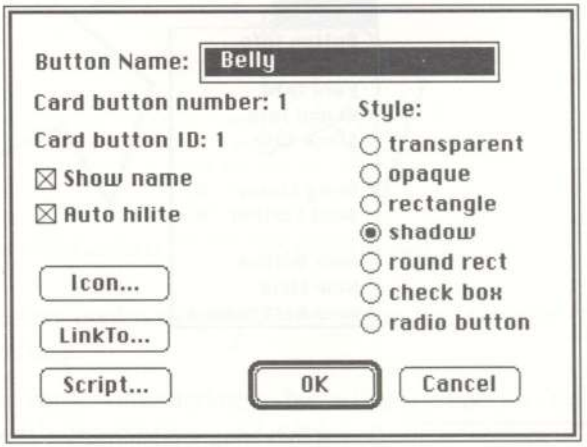
2. **Select the button you want to work with.**

   A button you've just created is automatically selected.

3. **Choose the Button Info command from the Objects menu (or double-click the button).**

   The dialog box in Figure 7-56 appears.

Figure 7-56 The Button Info dialog box



Button name

Type the name for this button into the Button Name box. If you leave the box blank, your button will be nameless. If you just created this button using the New Button command, the button is already named "New Button." Button name works with Show name, described next.

Show name

Check the "Show name" box to have the button's name appear on the button. (Figure 7-57 shows how a button name appears with different styles checked.)

Several buttons can have the same name; use the button ID, described below, to distinguish between them.

Button number and layers

The button number line tells you whether the selected button is on the card or on the background, as well as what layer it's on. A button that you've just created has the highest number, and is on the frontmost layer on that card. The first button you create has the number 1, the second button the number 2, and so on.

When you change a button's layer, you change its number and the numbers of all buttons whose layers are also changed. (See "Bring Closer" and "Send Farther," later in this section.) When you delete a button, the numbers of any buttons closer to the front are all reduced by one.

Background buttons and card buttons are numbered separately. So there can be both a background button and a card button with the same number.

The highest number a background or card button can have is the total number of buttons on that background or card; the lowest number a background or card button can have is 1.

Button ID

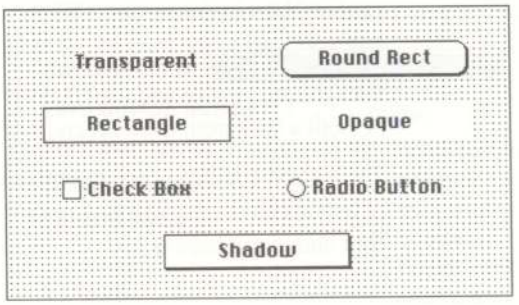
Every button has a button ID unique in its stack. Unlike either the button name or button number, the ID number is permanent and unchangeable. When you delete a button, its ID number is permanently retired from the stack. Advanced HyperCard creators can use the ID number to create special button actions.

Style

Click one of these choices to set the style for the selected button.

- "Transparent" makes the button transparent. Use this to make an invisible button (perhaps one that goes over a picture), or one that blends in with what's behind it.
- "Opaque" colors the button white. It's like a white rectangle without a border.
- "Rectangle" makes a white rectangle with a thin black border.
- "Shadow" makes a white rectangle with a drop shadow along the right and bottom sides.
- "Round rect" makes a standard Macintosh button, like the kind you see in any dialog box.
- "Check box" makes a square button with an opaque interior.
- "Radio button" makes a small round button with an opaque interior.

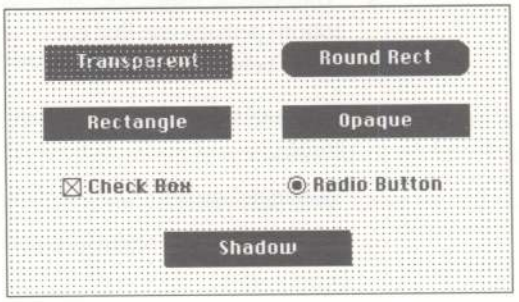
Figure 7-57 Button styles



Auto hilite

"Auto hilite" momentarily highlights a button of any style (except check box and radio button) when you click it. A button in either check box or radio button style toggles on and off when "Auto hilite" is set. With "Auto hilite" unchecked, you receive no visual feedback when you click a button. Figure 7-58 shows how each of the different button styles is highlighted.

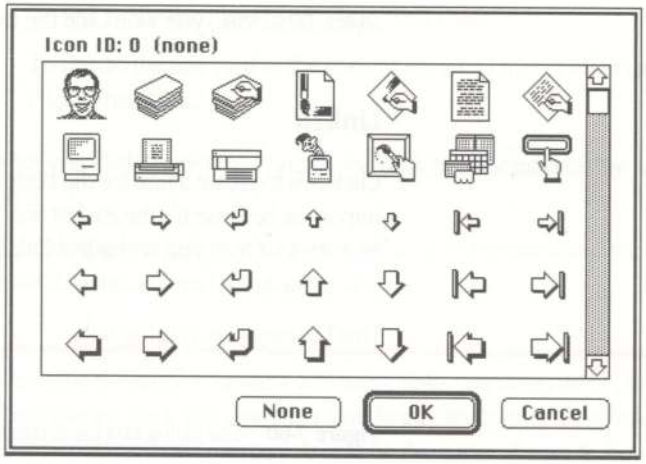
Figure 7-58 Highlighting different styles



Icon

Icon lets you use an icon as a button. Clicking this button brings up the dialog box in Figure 7-59.

Figure 7-59 The Icon dialog box



To use an icon as a button:

1. **Choose the Button tool.**

2. **Create a new button or select one that already exists.**

   Creating a new button automatically selects it.

3. **Choose Button Info from the Objects menu.**

   Or double-click the button you want to work with.

4. **Click the Icon button in the dialog box.**

   The dialog box in Figure 7-59 appears. If the button you've selected is already an icon, its picture is highlighted in the dialog box.

5. **Click the picture of the icon you want to use as your button.**

   (Scroll through the choices, if necessary.) The icon whose picture you click replaces the selected button on your card or background.

The advantage of using an icon is that picture and button are combined in one unit; this makes cutting, pasting, and moving buttons easier.

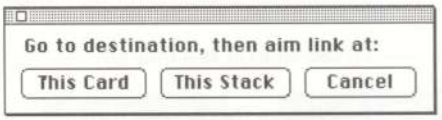
When you use an icon, don't use either the check box or the radio button styles; otherwise, you won't see the icon.

LinkTo

Click this to create a link for the button you're creating. This option is especially important because it's the easiest way to establish connections between cards and stacks. Once you've made a link, pressing the button immediately moves you to the linked card or stack.

LinkTo brings up a dialog box.

Figure 7-60 The dialog box for making links



Follow these steps to set a link between the current card and any other card in any stack:

1. **Choose the Button tool.**

2. **Create a new button or select one that already exists.**

   Creating a new button automatically selects it.

3. **Click LinkTo.**

   Using a button that already exists cancels any previous link you might have set.

4. **Go to the card you want to link to.**

   The dialog box stays on the screen while you're looking for the card. The card can be in the current stack or in any other stack.

5. **Click the choice that reflects which card you want to go to when you press the button.**

   To link to the card you're on, click "This Card."

   To link to the first card in the current stack (no matter what card you're on), click "This Stack."

After you click, HyperCard brings you back to the card with the selected button on it.

If the dialog box gets in your way, grab it by its top bar and drag it where you want it to be.

▲ Warning Changing the name of a stack will break links you've made between any card in the renamed stack and any other card in any stack (including links within the renamed stack itself). When you change the name of a stack, be sure to redo all the links. ▲

Script

This feature, available only if Scripting is checked on the User Preferences card in the Home stack, brings up the script editor. You use the script editor to review or to write scripts that control what happens when the selected button is clicked. (Writing scripts isn't covered in this guide. For information on scripting, see the *HyperTalk Beginner's Guide: An Introduction to Scripting*.)

Field Info

Field Info brings up information about the selected field. You can see and change the field's name, learn whether this is a background or a card field, find out the field's layer number (which tells you the layer of the field relative to other fields on this card or background), make the text in the field editable or locked, and determine the visual characteristics of both the text in the field and of the field itself.

The following steps explain how to use Field Info:

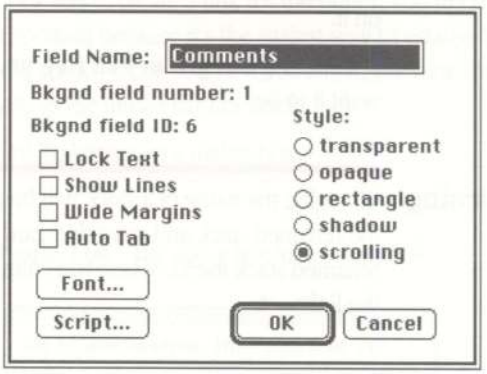
1. **Select the Field tool from the Tools menu.**

2. **Select the field you want to work with by clicking in it.**

3. **Choose the Field Info command from the Objects menu.**

   Or just double-click the field. The dialog box in Figure 7-61 appears.

Figure 7-61 The Field Info dialog box



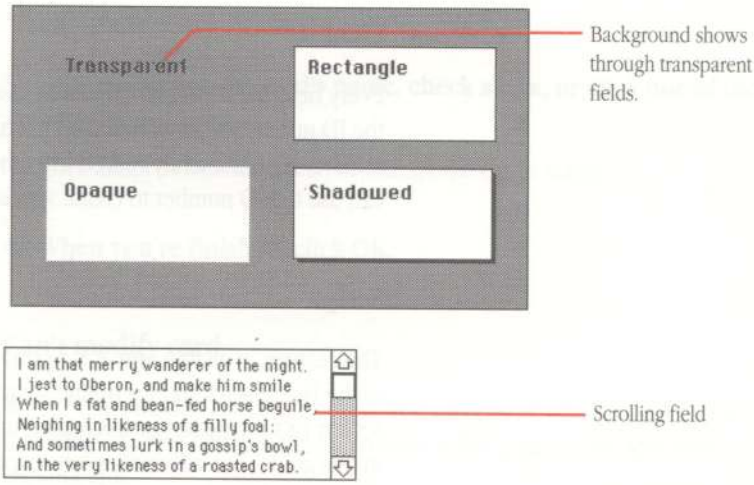
4. **Design the field.**

   - Type or change the field's name.
   - Click Lock Text to prevent the text in the field from being changed. (Click it again to make the text editable.)
   - Click Show Lines so that you can see where the lines are in a field.
   - Click Wide Margins to include extra space in the left and right margins (useful for making text in fields easier to read).
   - Click the Font button to set or change the look of text in the field. (See "Text Style," earlier in this chapter.)

- If you click Auto Tab for a nonscrolling field, pressing Return with the insertion point in the last line of that field moves the insertion point to the next field on the card. (This movement follows normal tabbing order, as described in "Tab Order and Layers" in Chapter 5.)
- Click one of the style buttons to set the look of the field itself.

5. When you're finished, click OK.

Figure 7-62 Field styles



For more details on the features described here, see Chapter 5, "Text in HyperCard."

Field number

The Field number tells you what layer the field is on relative to other fields. A field that you've just created has the highest number, and is on the frontmost layer. The first field you create has the number 1, the second field the number 2, and so on.

When you change a field's layer, you change its number and the numbers of all fields whose layers are also changed. (See "Bring Closer" and "Send Farther," later in this section.) When you delete a field, the numbers of any fields closer to the front are all reduced by one.

Background fields and card fields are numbered separately. So there can be both a background field and a card field with the same number.

The highest number a background or card field can have is the total number of fields on that background or card; the lowest number a background or card field can have is 1. (For more details, see "Tab Order and Layers" in Chapter 5.)

Field ID

Every field has a field ID unique in its stack. Unlike a field's name or number, the ID number is permanent and unchangeable. When you delete a field, its ID number is permanently retired from the stack. Advanced HyperCard creators can use the ID number to create special field actions.

Script

This feature, available only if Scripting is checked on the User Preferences card in the Home stack, brings up the script editor. You use the script editor to review or to write scripts associated with the field. (Writing scripts isn't covered in this guide. For information on scripting, see the *HyperTalk Beginner's Guide: An Introduction to Scripting*.)

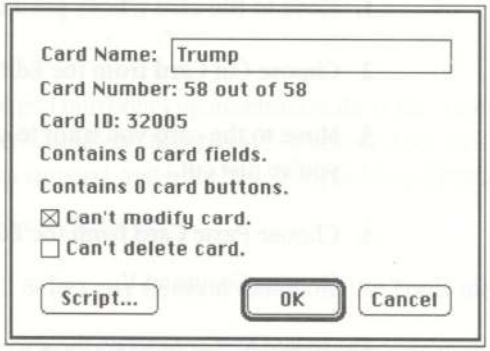
Card Info

The Card Info command brings up information about the current card. To use the Card Info command:

1. **Select any General tool from the Tools menu.**
2. **Choose the Card Info command from the Objects menu.**

   The dialog box in Figure 7-63 appears.

Figure 7-63 The Card Info dialog box



3. **Type or change the card's name, check a box, or click one of the buttons.**

   Click Script to look at, create, or change the card's script.

4. **When you're finished, click OK.**

Can't modify card

When "Can't modify card" is checked, you can't make any changes to the card, including entering text into fields. To allow editing again, uncheck the box by clicking in it.

Can't delete card

When "Can't delete card" is checked, you can't remove the card from the stack. (You can, however, delete the stack, taking the protected card with it.) To allow the card to be removed, uncheck the box by clicking in it.

Changing a card's position in a stack

Card Number tells you the number of cards in the stack, and the current card's position in the stack.

To change a card's position in a stack, follow these steps:

1. **Move to the card whose position you want to change.**

2. **Choose Cut Card from the Edit menu.**

3. **Move to the card you want to come immediately before the one you've just cut.**

4. **Choose Paste Card from the Edit menu.**

   Or press Command-V.

The pasted card appears on the screen.

To move a card to the first position in a stack requires several more steps. You must first make the wanted card the second one in a stack; then you have to move the first card in the stack out of the way.

To change a card's position so that it's first in a stack:

1. **Move to the card whose position you want to change.**

2. **Choose Cut Card from the Edit menu.**

3. **Choose First from the Go menu.**

   Or press Command-1. The first card in the stack appears.

4. **Choose Paste Card from the Edit menu.**

   Or press Command-V. The pasted card appears from the screen; it is now the second card in the stack.

5. **Choose First from the Go menu again.**

   Or press Command-1. The first card in the stack appears.

6. **Choose Cut Card from the Edit menu.**

   Or press Command-X. The card you had originally set out to reposition is now first in the stack.

7. **Choose Paste Card from the Edit menu.**

   Or press Command-V. The original first card is now second.

Bkgnd Info

Bkgnd Info brings up information about the current background. You can see and change the background's name, find out the number of cards that share the background, and learn how many fields and buttons this background has.

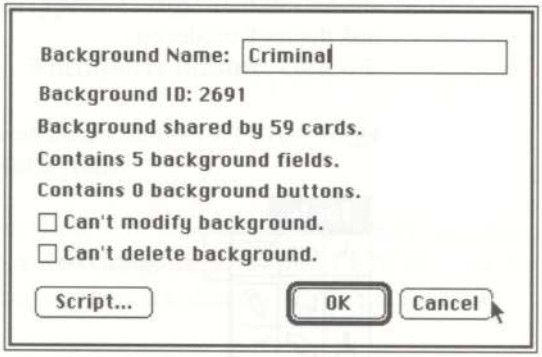
To use Bkgnd Info:

1. **Select any General tool from the Tools menu.**

2. **Choose Bkgnd Info from the Objects menu.**

   The dialog box in Figure 7-64 appears.

Figure 7-64 The Bkgnd Info dialog box



3. **Type or change the background's name, check a box, or click one of the buttons.**

4. **When you're finished, click OK.**

Can't modify background

When "Can't modify background" is checked, you can't edit the background in any way. To allow editing of the background again, uncheck the box by clicking in it.

Can't delete background

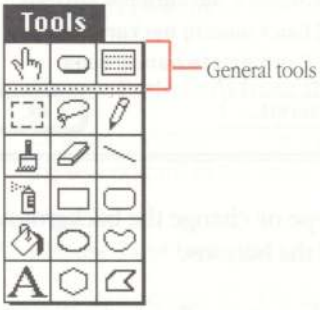
When "Can't delete background" is checked, you can't delete the last card with this background in a stack. (You can, however, delete the stack—including the protected background). To unprotect the background, uncheck the box by clicking in it.

For information on backgrounds, see "Background," earlier in this chapter.

Stack Info

The Stack Info command brings up information about the selected stack. You can see and change the stack's name, learn the number of cards in the stack and the amount of space the stack uses, and read the name of the folder and disk the stack resides on.

Figure 7-65 The General tools are Browse, Button, and Field



To use Stack Info:

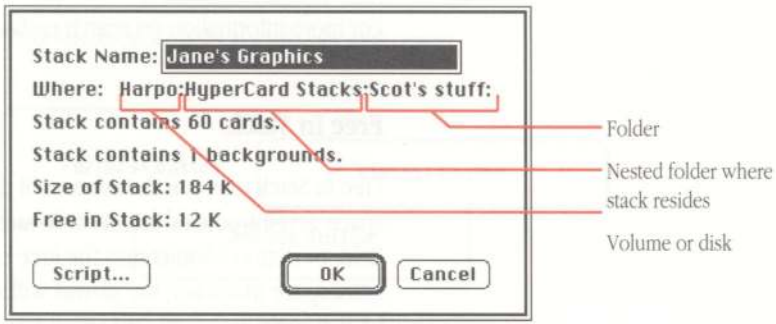
1. **Select any General tool from the Tools menu.**

   The General tools are Browse, Button, and Field.

2. **Choose the Stack Info command from the Objects menu.**

   The dialog box in Figure 7-66 appears.

Figure 7-66 The Stack Info dialog box



3. **Type or change the stack's name or click one of the buttons.**

4. **When you're finished, click OK.**

Stack Name

The name is the same as it appears in the Finder and in the directory dialog box. You change the stack's name by typing in the Stack Name box. Changing the name here also changes the name in the Finder.

▲ **Warning** Changing the name of a stack will break links you've made between any card in the renamed stack and any other card in any stack (including links within the renamed stack itself). When you change the name of a stack, be sure to redo all the links. ▲

Where

The Where information tells you the full search path to where the stack resides, starting with the disk and ending with the folder that actually holds the stack. In Figure 7-66, the stack resides in the folder called Scot's stuff on the disk Harpo. A longer trail of names would indicate that the stack is further nested within folders.

For more information on search paths, see "Search Paths" in Chapter 4.

Free in Stack

Free in Stack tells you the amount of extra memory space in the stack. (Extra space gets introduced into a stack each time you delete a card, background, field, or button.) Sometimes the Free number can be substantial, and the more extra space in a stack, the slower will actions be carried out, and the larger will be the stack.

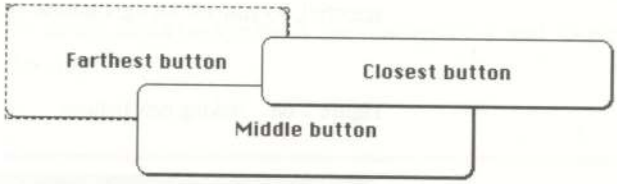
You can get rid of the extra space by using the Compact Stack command from the File menu. When you choose Stack Info again, Free in Stack will be zero K, and Size of Stack will likely be smaller than it was.

Bring Closer

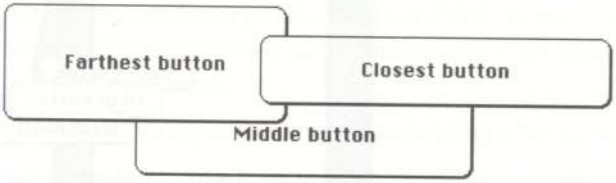
The Bring Closer command (or Command-plus) brings the selected button or field one layer closer and increases its number to reflect its current layer, relative to other buttons or fields.

You'd want to bring an object closer when a second object is covering it, not allowing you to use the selected object.

Figure 7-67 Moving a button closer



Three buttons, in the order in which they were created



Using Bring Closer, the farthest button is now in the middle.

The highest number an object can have in any case is the total number of objects of that type on a given card or background; the lowest number an object can have is 1.

Send Farther

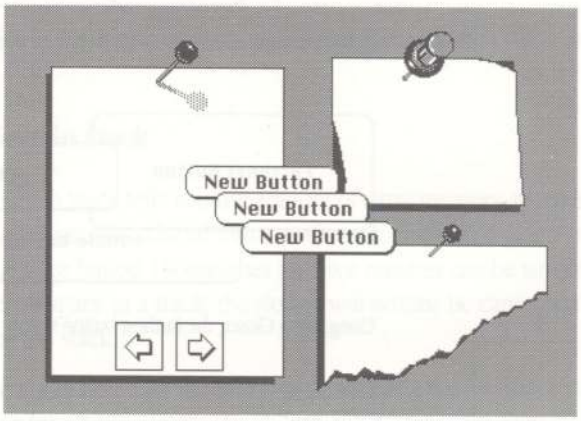
The Send Farther command (or Command-minus) puts the selected button or field one layer further back and decreases its number to reflect its current layer relative to other buttons or fields. You'd want to move an object farther back when it's covering a second object. (You can't use a covered object effectively.)

New Button

This command automatically selects the button tool and creates a new button named "New Button" in the rounded rectangle style. The button appears in the center of the screen, selected so that you can move it or size it easily.

Choosing New Button several times produces several new buttons laid on top of one another. When you choose New Button, the button tool is automatically selected, so you see all the buttons on the card (as shown in Figure 7-68).

Figure 7-68 Making new buttons



To change the name of the button or to change the way it looks, choose Button Info (described earlier in this section).

To create a new background button, first choose Background from the Edit menu.

New Field

This command automatically selects the field tool and creates a new transparent field. The field appears in the center of the screen, selected so that you can move it or size it easily.

To name the field or to change the way it looks, choose Field Info (described earlier in this section).

To create a new background field, first choose Background from the Edit menu.

To read more about fields, see Chapter 5.

New Background

New Background creates a new card with a new background in the current stack. The new background has no fields or buttons and is entirely blank.

For details about backgrounds, see "Background" and "Bkgnd Info," earlier in this chapter.

Paint menu

The Paint menu commands work in conjunction with the Paint tools to manipulate and change pictures. You can choose these commands from the menu or, if you have Power Keys checked in the Options menu, you can use keyboard equivalents.

The Paint menu appears only when you're using a Paint tool.

For information on the Paint tools, see "Tools Menu," earlier in this chapter.

Figure 7-69 The Paint menu

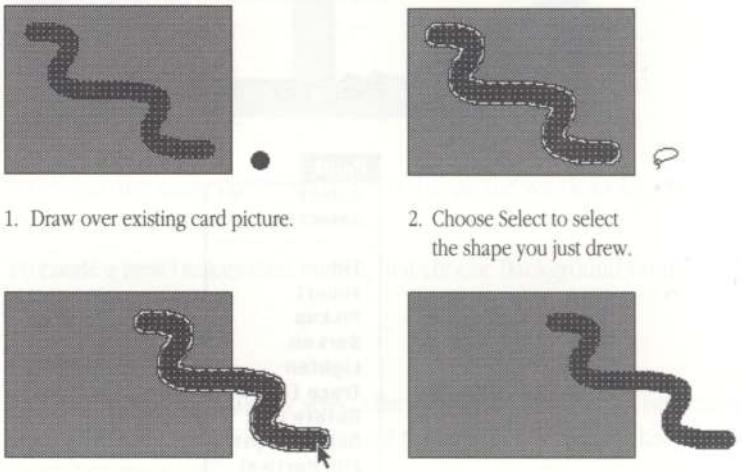
Throughout this section, you'll see references to power keys. Power keys let you choose menu commands from the keyboard. For information on power keys, see "Power Keys" under the Options menu section of this chapter.

Select

Select (or either power key S or Command-S) lassos the shape you most recently drew.

This command is particularly useful if you've just drawn a shape very close to or actually touching another shape, and you need to move the new shape. (In fact, you can draw a new shape on top of an old one, choose Select, and then drag the new shape away.)

Figure 7-70 Using Select



1. Draw over existing card picture.
2. Choose Select to select the shape you just drew.
3. Now you can move or alter that shape.
4. When you let go of the object, it becomes "set" into the card picture.

If you've selected a shape with the Selection rectangle, choosing Select lassos the shape. If nothing is selected, Select lassos everything (the same effect as double-clicking the Lasso tool).

The object stays selected until you select another tool, click the mouse, or keep the shape. (see "Keep," later in this section.)

Select All

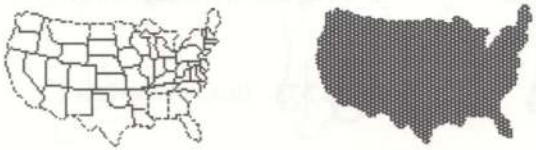
Select All (or either power key A or Command-A) selects the entire picture. This has the same effect as double-clicking the Selection tool.

To select the entire background picture, first choose Background from the Edit menu; then choose Select All.

Fill

Fill (or power key F) colors the selected part of a picture with the current pattern. This command is especially useful for quickly changing the pattern of a large area.

Figure 7-71 Using Fill



1. Select the picture to fill. 2. Choose Fill.

For related commands see "Bucket" under "Tools Menu" (earlier in this chapter) and "Draw Filled" under "Options Menu" (later in this chapter).

Invert

Invert (or power key I) reverses the color of the dots in the selected part of a picture, such that white dots become black and black dots become white.

Figure 7-72 Inverting a picture

▲ **Warning** When you invert a lassoed area that is not totally enclosed, HyperCard paints white the unenclosed part of the lassoed area; the whole image seems to disappear. To get the image back, choose Undo from the Edit menu. ▲

Pickup

Pickup (or power key P) is like a cookie cutter for images. Here's how you use Pickup:

1. **Select an image.**
2. **Drag it over a second image.**
3. **Choose Pickup.**

   The first image picks up the pattern of the second.

4. **Drag the first image away.**

Figure 7-73 How Pickup works

1. This is the shape with the pattern you want to change.

2. This is the pattern you want to use.

3. Select the shape and move it over the pattern.

4. Choose Pickup (or just press P if power keys are active).

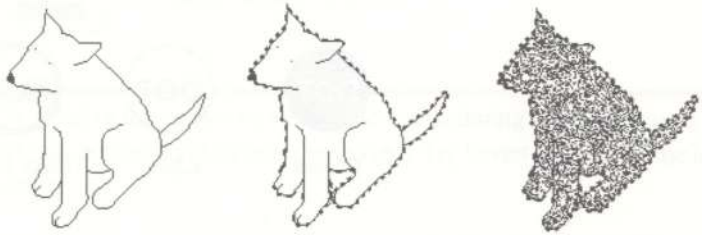
5. Drag the shape away.

See Chapter 6 for more examples using this command.

Darken

Darken (or power key D) darkens the selected picture by randomly turning white dots black. Each time you choose Darken, a few more dots are changed.

Figure 7-74 Using Darken



Original Selected Darkened

Keeping power key D pressed repeats the action until you release the key or until the selection is totally black.

Lighten

Lighten (or power key L) lightens the selected picture by randomly turning black dots light. Each time you choose Lighten, a few more dots are changed.

Figure 7-75 Using Lighten

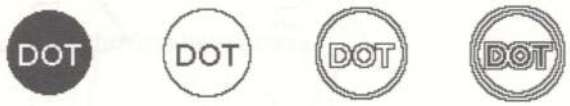
Original Selected Lightened

Keeping power key L pressed repeats the action until you release the key or until the selection is totally white.

Trace Edges

Trace Edges (or power key E) outlines black areas in a picture or in the selected part of a picture. Repeated tracing adds more outlines.

Figure 7-76 Untraced, single-traced, and multitraced areas

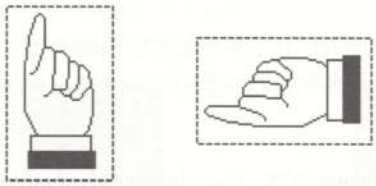


Original Edges Edges, twice Edges, three times

Rotate Left

Rotate Left (or power key [ ) turns the selected portion of a picture 90° left.

Figure 7-77 Rotating an image to the left

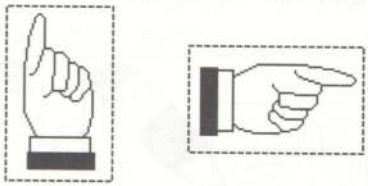


▲ **Warning** If any part of the picture moves off the screen during a rotation, you'll lose that part permanently—Undo can't save it. Try Revert to get back the lost portion. ▲

Rotate Right

Rotate Right (or power key]) turns the selected portion of a picture 90° right.

Figure 7-78 Rotating an image to the right

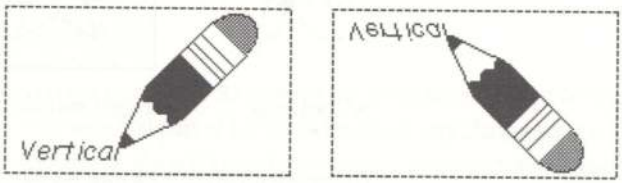


▲ Warning If any part of the picture moves off the screen during a rotation, you'll lose that part permanently—Undo can't save it. Try Revert to get back the lost portion. ▲

Flip Vertical

Flip Vertical (or power key V) flips the selected portion of a picture vertically.

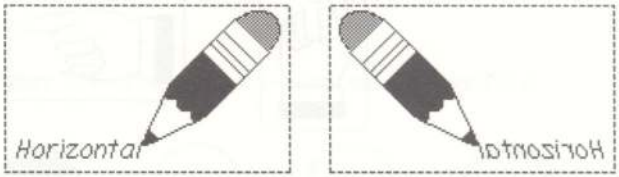
Figure 7-79 Flipping an image vertically



Flip Horizontal

Flip Horizontal (or power key H) flips the selected portion of a picture horizontally about its center line.

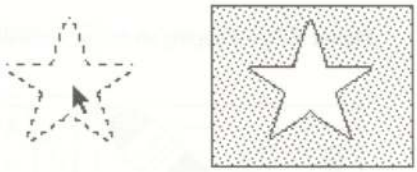
Figure 7-80 Flipping an image horizontally



Opaque

Opaque (or power key O) makes the selected portion of a card picture opaque. (You can't see the portion of a background covered by an opaque foreground.)

Figure 7-81 The Opaque command



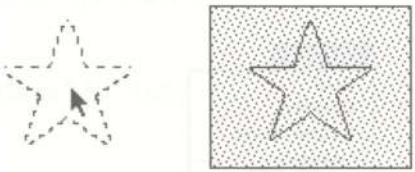
Selected image . . . . . dragged and made opaque.

To see what part of a picture is opaque, press Option-O; the opaque parts show as black.

Transparent

Transparent (or power key T) makes the selected part of a card picture transparent. (You can see the background if it's covered by a transparent foreground.) Cards are transparent unless you make them opaque.

Figure 7-82 The Transparent command



Selected image . . . . . dragged and made transparent.

Keep

Keep (or Command-K) tells HyperCard that you want to keep the changes you've made to a picture. (Until you tell it differently, HyperCard assumes that you might want to throw away changes.) Use Revert to go back to the most recently kept version of the picture. (See "Revert," later in this section.)

Changing cards, switching to or from Background, or clicking a General tool has the same effect as choosing Keep.

Revert

Revert (or power key R) restores the most recently kept version of the picture (or the selected part of it), throwing away any changes since the last Keep command or since you started painting on this picture. (HyperCard accepts a picture when you choose Keep, switch to or from Background, change cards, or click a General tool.) It's like Undo on a larger scale.

Options menu

Commands on the Options menu modify the action of Paint tools.

Figure 7-83 The Options menu

The Options menu appears only when you're using a Paint tool. For information on the Paint tools, see "Tools Menu," earlier in this chapter.

Many of these commands work when you press the appropriate power key. For information on power keys, see "Power Keys," later in this section.

Grid

Grid (or power key G) constrains where picture elements line up when you use many of the Paint tools. When Grid is on, you can move a selection, draw, or type only at specific intervals. These intervals are eight dots apart (just under 1/8th of an inch).

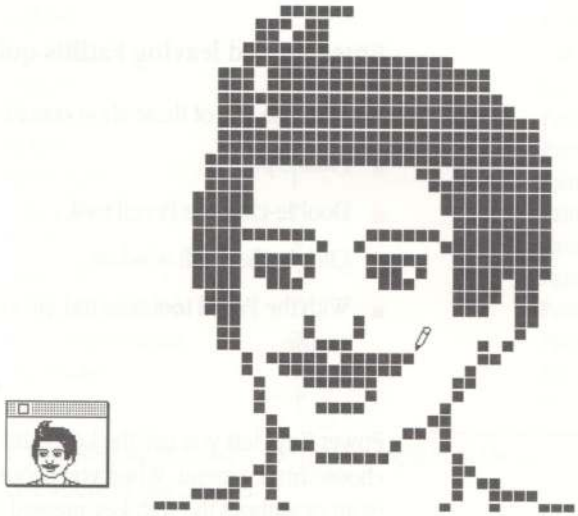
A check appears next to Grid in the Options menu when this feature is on.

FatBits

FatBits (or Option-F) lets you zoom in on a section of a picture to do close-in finish work and to edit your picture one dot at a time. Select an area and choose FatBits to blow up that area; then edit using any Paint tool. The tools work to scale.

A movable window in the lower-left corner shows you what effect your editing changes have when the picture's full-sized again. (To move the little window, drag it by its title bar.)

Figure 7-84 FatBits



A check appears next to FatBits in the Paint menu when FatBits is on.

Moving the picture around

Pressing and holding the Option key in FatBits changes the tool you're using to a hand. As you drag the hand, you move the picture around so you can get to a part that might be outside your viewing area. When you release the Option key, the pointer changes back to the tool you were using.

If you choose FatBits without first selecting an area, HyperCard zooms in on the part of the picture you last worked on. Hold down the Option key and use the grabbing hand to move to the part of the picture you want to work with.

To leave FatBits, choose the FatBits command again.

Entering and leaving FatBits quickly

You can use any of these short cuts to enter or leave FatBits:

- Press Option-F.
- Double-click the Pencil tool.
- Click in the small window.
- With the Pencil tool selected, press the Command key while you click the mouse.

Power Keys

Power Keys lets you use the keyboard to evoke commands you'd ordinarily choose from a menu. When you choose Power Keys, pressing a single key (with or without the shift key pressed) does the work of choosing a menu command with the mouse.

A power key modifies the way a particular tool acts. Table 7-4 shows a list of the commands that power keys invoke.

Table 7-4 Power keys

Command	Key	Menu
Darken	D	Paint
Draw Centered (on/off)	C	Options
Draw Multiple (on/off)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (on/off)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Rotate Left	[	Paint
Rotate Right	]	Paint
Select	S	Paint
Select All	A	Paint
Select black pattern	B	Patterns
Select white pattern	W	Patterns
Trace Edges	E	Paint
Transparent	T	Paint

If you need more details, see the description of the specific command elsewhere in this chapter.

A check appears next to power keys in the Options menu when this feature is on. To turn off power keys, choose Power Keys from the Options menu again. (The check will disappear.)

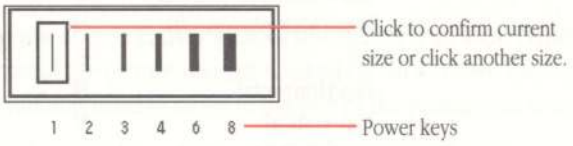
You can use several power keys in combination to create spectacular special effects. (Try C and M with the Oval tool, for example.)

When you're using the Paint Text tool, power keys are temporarily disabled.

Line Size...

You use Line Size to set the thickness of lines and borders. Choosing this command brings up a dialog box:

Figure 7-85 Line sizes

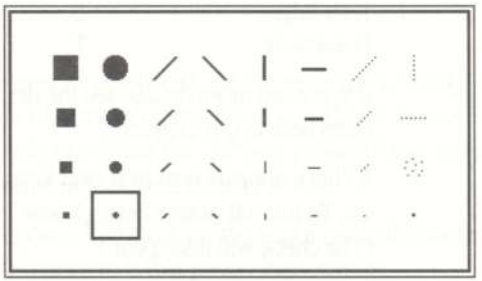


To select a thickness, click on it (or use a power key equivalent). You can also bring up the Line Size dialog box by double-clicking the Line tool.

Brush Shape...

Use Brush Shape to select a shape for the Brush. Each shape has a different effect when you use it. To select a shape, move the pointer to the shape you want; then click.

Figure 7-86 The Brush Shapes dialog box

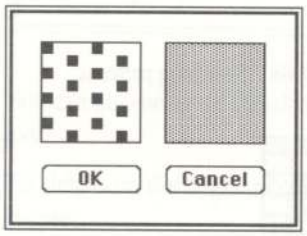


Double-clicking the Brush also brings up the Brush Shapes dialog box. For details on the Brush tool, see "Tools Menu," earlier in this chapter.

Edit Pattern...

Edit Pattern lets you edit the pattern currently selected on the Pattern menu by clicking dots on or off. When you choose Edit Pattern, the pattern editor appears. See Figure 7-87.

Figure 7-87 The pattern editor



To edit a pattern, move the pointer to the dot you want to change; then click. Clicking where there is no dot adds one; clicking an existing dot takes the dot away.

Double-clicking a pattern on the Pattern palette also brings up the pattern editor.

Using a nonstandard pattern

You can replace a pattern on the Pattern palette with any pattern on the screen. (See Figure 7-88.)

To use a pattern that's already on the screen, follow these steps:

1. **Make sure the new pattern is on the screen.**
2. **Click the pattern on the Pattern palette to be replaced.**
3. **Choose Edit Pattern from the Options menu.**

   (Or double-click the pattern to be replaced if you're using the Pattern palette.) The pattern editor appears showing the selected pattern.

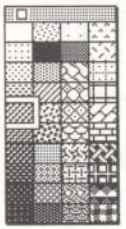
4. Click anywhere on the new pattern in the picture.

The old pattern in the pattern editor is replaced by the new one.

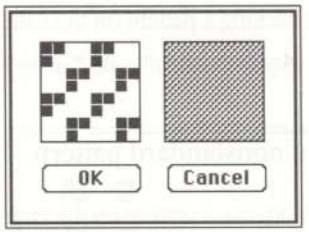
5. Click OK.

The new pattern replaces the selected pattern in the Pattern menu.

Figure 7-88 Switching patterns

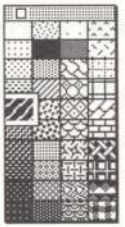


1. Select a pattern to be replaced.



2. Bring up the pattern editor.

3. Click anywhere on the new pattern in the picture to place the pattern in the editor.



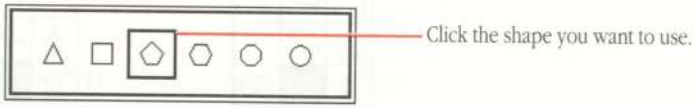
4. The new pattern is saved with the stack when you click OK.

The new pattern is saved with the stack.

Polygon Sides...

You use Polygon Sides to select a shape for the Regular Polygon tool.

Figure 7-89 Selecting a shape



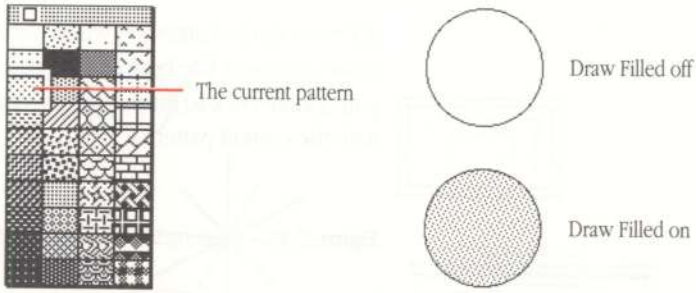
You can also bring up this dialog box by double-clicking the Regular Polygon tool.

For details on the Regular Polygon tool, see "Tools Menu," earlier in this chapter.

Draw Filled

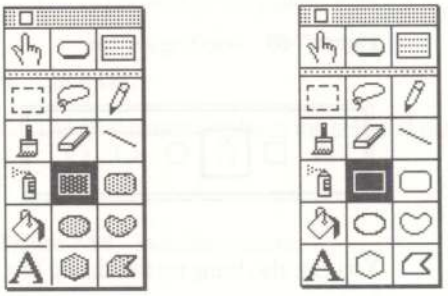
Draw Filled fills shapes as you draw them. It uses the current pattern to fill the shapes.

Figure 7-90 Using Draw Filled



The Tools menu looks different when Draw Filled is turned on. The tools that it affects (Rectangle, Rounded Rectangle, Oval, Curve, Polygon, and Regular Polygon) have slightly different representations. (See Figure 7-91.)

Figure 7-91 The Tools menu with Draw Filled turned on and turned off



Draw Filled turned on

Draw Filled turned off

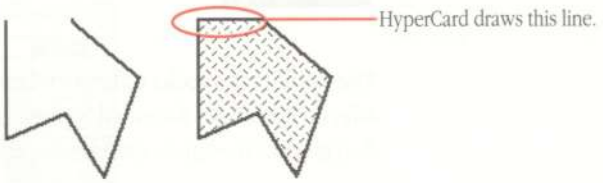
- *Draw Filled short cut:* Double-clicking any of the tools that Draw Filled affects (except Regular Polygon) turns Draw Filled on and off.

When Draw Filled is turned on, a check mark appears next to it in the menu. To turn off Draw Filled, choose the command again.

Draw Filled with the Polygon tool

If Draw Filled is turned on while you're using the Polygon tool, HyperCard draws a straight line between the polygon's starting and ending points when you double-click to finish your polygon. The resulting enclosed shape is filled with the current pattern.

Figure 7-92 Creating an enclosed, filled polygon



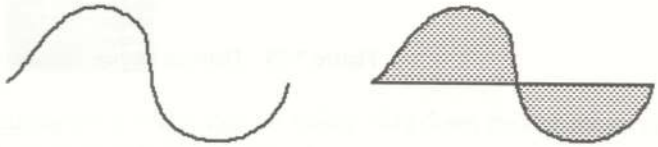
Draw Filled turned off

Draw Filled turned on

Draw Filled with the Curve tool

If Draw Filled is turned on while you're using the Curve tool, HyperCard draws a straight line connecting the starting and ending points of the shape when you release the mouse button; then it fills the shape with the selected pattern.

Figure 7-93 Creating a filled, curved shape



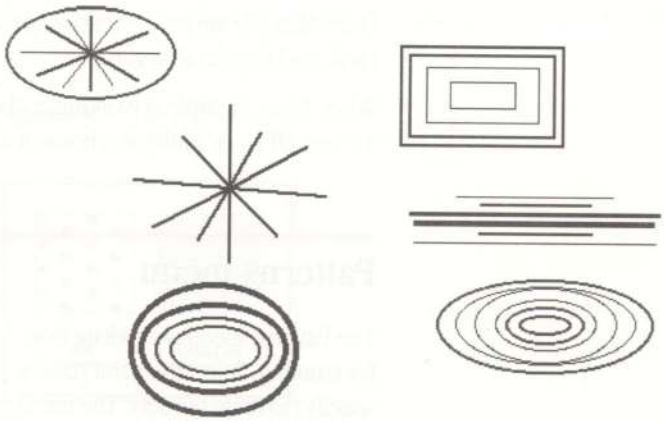
Curve tool with Draw Filled off

Curve tool with Draw Filled on

Draw Centered

Draw Centered (or power key C) lets you draw out from a center point. (You usually draw lines, rectangles, and ovals starting from an edge or corner.)

Figure 7-94 Drawings made with Draw Centered turned on



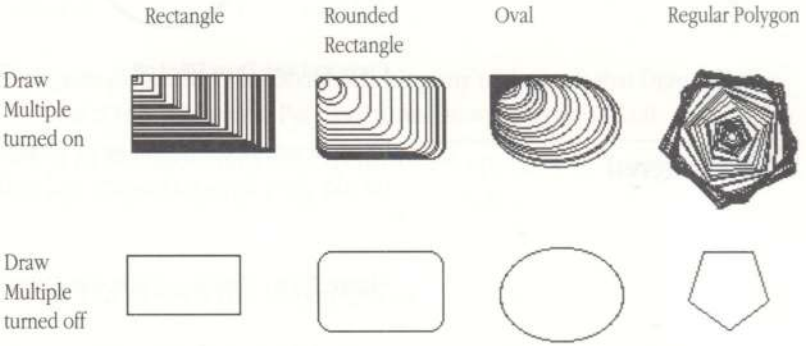
Draw Centered affects the following tools: Line, Rectangle, Rounded Rectangle, Oval, Curve, Polygon, and Regular Polygon.

When Draw Centered is turned on, a check mark appears next to it in the menu. To turn off Draw Centered, choose the command again.

Draw Multiple

Draw Multiple (or power key M) draws multiple images as you drag with the mouse.

Figure 7-95 Drawing shapes with and without Draw Multiple turned on



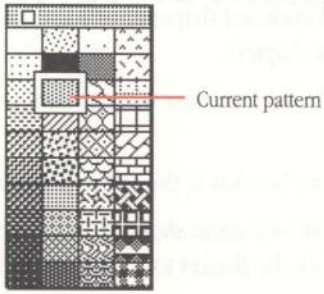
Draw Multiple affects the following tools: Line, Rectangle, Rounded Rectangle, Oval, and Regular Polygon.

When Draw Multiple is working, a check mark appears next to it in the menu. To turn off Draw Multiple, choose it again.

Patterns menu

The Patterns menu is a palette from which you pick the pattern you want to use for painting. Select the paint pattern you want to use to fill shapes and (if you specify) to draw borders. The menu can be "torn off" and the palette placed anywhere on the screen.

Figure 7-96 Torn-off Patterns menu



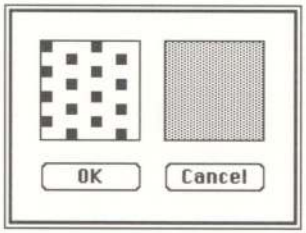
To create a movable Patterns palette, drag down through the menu, either past the bottom or beyond either side.

Put the palette wherever you want by dragging. To move the palette around, drag it by its top bar or by any edge. To put it away, click its close box. If it gets stuck in an awkward place, just tear off the Patterns menu again; the old palette disappears.

Editing patterns

To edit a pattern, select the pattern you want to edit and choose Edit Pattern from the Options menu (or double-click the pattern you want to edit); when the pattern editor appears, click a dot to make the dot go away or click where there is no dot to make one appear. The new pattern is saved with the stack.

Figure 7-97 The pattern editor



To fill enclosed shapes with the selected pattern as you draw them, check the Draw Filled command on the Options menu.

To fill enclosed shapes after you draw them, use the Bucket (described earlier in this chapter).

To fill a selected area with the current pattern, choose Fill under the Paint menu.

To draw borders in the selected pattern, press the Option key as you drag.

- *Patterns menu shortcut:* Press Tab with any Paint tool selected or double-click the Bucket tool to make the Patterns palette appear and disappear.

CHAPTER 8

Keyboard Commands

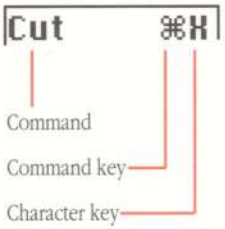
YOU ISSUE MANY HYPERCARD COMMANDS BY MAKING CHOICES FROM MENUS. But HyperCard extends what you can do by making many commands available from the keyboard. In fact, there's a whole range of commands that you can issue only by pressing one or more keys and using the mouse at the same time. This chapter lists these commands.

This chapter contains the following sections:

- "Command Key Menu Commands" gives a list of the commands you execute by first pressing and holding down the Command key and then a specific character.
- "Browsing" shows you how to get around the stacks and from card to card quickly.
- "Text Editing" lists the keys to press to change fonts, type sizes, styles, and so on.
- "Paint Power Keys" lists the graphics commands you can issue with a single keystroke.
- "Dragging With Modifier Keys" explains what happens if you drag both with a particular tool selected and with the Command, Option, or Shift key held down.
- "Miscellaneous Keyboard Shortcuts" lists the shortcuts that don't fit easily into other areas.

Because all these sections are really summaries, you'll also find information about where to look for more help.

Command key menu commands



As you look at a menu, you'll see some commands followed by a symbol and a character. The propeller-shaped symbol represents the Command key. You can issue such a menu command by pressing the Command key at the same time that you press the specified character key.

❖ *Command or Apple:* The Command key is marked by a propeller-shaped symbol. On some Macintosh keyboards, the key also has an Apple symbol, and some Macintosh manuals might call it the Apple key. Both names refer to the same key.

Table 8-1 shows the keyboard equivalent keys by menu; Table 8-2 shows them in alphabetic order by command name.

Table 8-1 Keyboard equivalents by menu

Command	Keyboard equivalent	Menu
Edit	Command-B	Background (toggle)
	Command-C	Copy
	Command-N	New Card
	Command-T	Text Style
	Command-V	Paste
	Command-X	Cut
	Command-Z	Undo
File	Command-O	Open Stack
	Command-P	Print Card
	Command-Q	Quit HyperCard
Go	Command-F	Find
	Command-H	Home
	Command-M	Message (toggle)
	Command-R	Recent
	Command-1	First
	Command-2	Prev
	Command-3	Next
	Command-4	Last
	Command-?	Help
	Command-Tilde (~)	Back
Objects	Command-plus (+)	Bring Closer
	Command-minus (-)	Send Farther
Paint	Command-A	Select All
	Command-K	Keep
	Command-S	Select

Table 8-2 Keyboard equivalents by command

Command	Keyboard equivalent	Menu
Back	Command-Tilde (~)	Go
Background	Command-B	Edit
Bring Closer	Command-plus (+)	Objects
Copy	Command-C	Edit
Cut	Command-X	Edit
Find	Command-F	Go
First	Command-1	Go
Help	Command-?	Go
Home	Command-H	Go
Keep	Command-K	Paint
Last	Command-4	Go
Message	Command-M	Go
New Card	Command-N	Edit
Next	Command-3	Go
Open Stack	Command-O	File
Paste	Command-V	Edit
Prev	Command-2	Go
Print Card	Command-P	File
Quit HyperCard	Command-Q	File
Recent	Command-R	Go
Select	Command-S	Paint
Select All	Command-A	Paint
Send Farther	Command-minus (-)	Objects
Text Style	Command-T	Edit
Undo	Command-Z	Edit

For details on all these commands, see Chapter 7.

Browsing

You can use any of the browsing keystrokes shown in Table 8-3, except Tilde (~) and Esc, at any time. To use Tilde or Esc for browsing, you must be using one of the General tools. When a Paint tool is selected, pressing the Tilde key undoes the last Paint action; use Command-Tilde to move to the most recently viewed card.

For combinations that require you to use the Command key, be sure to press and hold down the Command key before you press the second key.

Table 8-3 Browsing from the keyboard

Destination	Keyboard shortcut
Help	Command-?
Home	Command-H
First card in stack	Command-1 or Command–Left Arrow
Previous card in stack	Command-2 or Left Arrow
Next card in stack	Command-3 or Right Arrow
Last card in stack	Command-4 or Command–Right Arrow
Retrace through cards viewed	Tilde (~), Esc, or Down Arrow
Forward through retraced cards	Up Arrow
Record of cards recently seen	Command-R
Select Browse tool	Command-Tab
Store current card's location for quick return (many locations can be stored)	Command–Down Arrow
Return to stored location (last in-first out order)	Command–Up Arrow
Next field on card	Tab
Previous field on card	Shift-Tab

For a tutorial on browsing, see Chapter 2. For information on creating buttons for browsing, see "Button Tool" and "New Button" in Chapter 7.

Text editing

You can use the combination keystrokes in Table 8-4 when you're using either the Browse tool or the Paint Text tool. Be sure to press and hold down the Command key before you press the character key.

Table 8-4 Text editing keys

Function	Key combination
Font, next in system	Command-Shift->
Font, previous in system	Command-Shift-<
Text style dialog box	Command-T
Space, less between lines	Command-Option-Shift-<
Space, more between lines	Command-Option-Shift->
Text size, larger	Command->
Text size, smaller	Command-<

For details on creating the fields in which regular (as opposed to Paint) text appears, see Chapter 5. See Chapter 7 for information on both regular and Paint text.

Paint power keys

Table 8-5 shows the Paint power keys. You must be using a Paint tool with Power Keys checked in the Options menu. "Toggle" after a command means that pressing the same key turns the option off.

Table 8-5 Power keys available when using Paint tools

Command	Key	Menu
Black pattern	B	Patterns
Darken	D	Paint
Draw Centered (toggle)	C	Options
Draw Multiple (toggle)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (toggle)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Rotate 90° Left	[	Paint
Rotate 90° Right	]	Paint
Select	S	Paint
Select All	A	Paint
Trace Edges	E	Paint
Transparent	T	Paint
White pattern	W	Patterns

Dragging with modifier keys

Table 8-6 shows you what happens when you drag with different tools selected and hold down different modifier keys. Tools that aren't listed aren't affected by modifiers.

For detailed information on all the tools, see Chapter 7.

Table 8-6 Effects of modified dragging

Tool	With Command key	With Shift key	With Option key
Button	Create button	Move button horizontal or vertical	Copy button
Field	Create field	Move field horizontal or vertical	Copy field
Selection	Select tightly	Move selection horizontal or vertical	Copy selection
Lasso	Lasso everything	Move selection horizontal or vertical	Copy selection
Line	No effect	Draw at 15° angles	Draw with pattern
Eraser	Erase white	Erase straight horizontal or vertical	No effect
Pencil	Get/leave FatBits	Draw straight horizontal or vertical	No effect
Rectangle	No effect	Draw square	Patterned border
Curve	No effect	No effect	Patterned border
Brush	Erase what you paint over	Paint straight horizontal or vertical	No effect
Spray	Erase what you spray over	Spray straight horizontal or vertical	No effect
Rounded Rectangle	No effect	Draw square with round corners	Patterned border
Polygon	No effect	Draw at 15° angles	Draw with pattern
Oval	No effect	Draw circle	Patterned border
Regular polygon	No effect	Rotate in 15° increments	Patterned border

Miscellaneous keyboard shortcuts

The following table lists keyboard shortcuts that don't fit easily into other categories.

Table 8-7 Miscellaneous keyboard shortcuts

Key or combination	Effect
Command-Option*	Show all buttons (Browse or Button tool selected)
Command-Shift-Option*	Show all fields (Field tool selected)
Command-Backspace	Delete current card
Command-Period	Cancel current action (like Printing)
Command–Space bar	Hide and show menu bar
Command-Tab	Select Browse tool
Command-Tab-Tab	Select Button tool
Command-Tab-Tab-Tab	Select Field tool
Command-Tilde (~)	Go to most recent card displayed (Paint tool selected)
Command-Shift-V	Paste miniature card image (with card in Clipboard)
	Paste a field along with its text
Command–Down Arrow	Store current card's location for quick return (you can have many locations stored)
Command–Up Arrow	Return to stored location (last in–first out order)
Option-D	Show card picture (with Paint tool)
Option-O	Show opaque areas (with Paint tool)
Option-Tab	Toggle Tools palette

*Darker outlines indicate background fields or buttons.

Table 8-7 Miscellaneous keyboard shortcuts (continued)

Key or combination	Effect
Tilde (~)	Same as Back command (General tool selected) Undo most recent action (Paint tool selected)
Down Arrow	Same as Back command (any tool selected)
Up Arrow	Come forward through reviewed cards
Tab	Toggle Patterns palette (Paint tool selected) Advance insertion point to next background field (Browse tool selected)
Command-Option-C	Edit script of current card
Command-Option-B	Edit script of current background
Command-Option-S	Edit script of current stack

Holding down the Command key before and as you drag through the File menu shows the full File menu, even if Browsing or Typing is clicked on the User Preferences card in the Home stack and/or in a stack's Protect Stack dialog.

A P P E N D I X A

Common HyperCard Messages

YOU CAN SEND A ONE-LINE COMMAND (CALLED A **MESSAGE**) TO HYPERCARD through the Message box. Use messages to save time traveling through stacks, to launch applications, and to retrieve important information quickly.

To send a message:

1. Choose Message from the Go menu.

Or press Command-M.

2. Type the message into the Message box.

Use the syntax shown in the message descriptions section that follows.

3. Press Return.

You can also press Enter.

Message descriptions

This section describes the most common HyperCard messages that you might type into the Message box. The syntax is in its simplest form.

Here's an example for the Go message, followed by a list of ways you could type the same message to get to the same place (the first card of the Art Ideas stack):

```
Go "Art Ideas"
Go to "Art Ideas"
Go stack "Art Ideas"
Go to stack "Art Ideas"
Go to card 1 of stack "Art Ideas"
```

HyperTalk: The source of all messages

The material in this appendix represents a small subset of HyperTalk, HyperCard's scripting language.

Using HyperTalk, you write scripts for buttons, fields, cards, backgrounds, and stacks; these scripts give you much greater control over HyperCard than is available using only the menu commands. HyperTalk is an easy language to learn, and is especially good as a first language for novice programmers.

For a tutorial on HyperTalk, see the *HyperTalk Beginner's Guide: An Introduction to Scripting*. Several other excellent books have been written about HyperTalk; consult your favorite bookseller to see what's currently available.

How to read messages

Here are some hints to help you read the messages in this appendix and to use these messages:

- A message is all on one line.
- The first word of a message is its name. When a message is more than one word, you'll find a note saying so.
- Words in italics stand for other words. For example, *menuItem* means the name of any item in any menu.
- Some parts are optional helper words; they appear in square brackets (but don't type the brackets into the Message box).
- The remaining part of a message is usually a description of something ("with document," for example).
- All words can be in capital or small letters.

Date

`The Date`

`The Long Date`

This message puts the current date into the Message box in the form mm/dd/yy:

Type	`The Date`
You get	3/27/89

Alternatively, Long Date produces a full date:

Type	`The Long Date`
You get	Friday, March 27, 1989 (or whatever the date is, in this form)

You must start this message with the word "The."

DoMenu

`DoMenu` *menuItem*

This message does *menuItem* as if you had chosen the command from a HyperCard menu:

Type	`DoMenu Home`
You get	the first card in the Home stack

(Home is on the Go menu.) You must type menuItem exactly as it appears in the menu. For example, to open a stack, type

```
DoMenu Open Stack...
```

The three dots are part of the menu item name.

Go

`Go [to]` *description of a card or stack*

This message brings you to the designated card in the designated stack. If you designate a stack without designating a card, you go to the first card in that stack:

Type	`Go "Art Ideas"`
You get	the first card in the Art Ideas stack

If the stack you specify isn't in the Help Stacks folder or the HyperCard Stacks folder, be sure to list the search path on the appropriate card in the Home stack. (See "Search Paths" in Chapter 4.)

Hide

```
Hide tool window
Hide pattern window
Hide message
Hide menubar
```

This message hides what you tell it to. It's as though you'd clicked a close box. Hide menubar hides the menu bar, giving you more display space (as though you'd pressed Command–Space bar).

Type	`Hide tool window`
You get	Tools menu goes away

Also see `Show`, later in this appendix.

Open

`Open` *application*

`Open` *document* `with` *application*

This command opens the application you've named. If you name a document, HyperCard opens that document with the application you name.

Type	`Open Memo with MacWrite`
You get	the document Memo opened in MacWrite

If the document or application you specify isn't at the top level of the file hierarchy, be sure that the search path is listed on the appropriate card in the Home stack. (See "Search Paths" in Chapter 4.)

When you quit the application, you end up back at the card you were on when you sent the message.

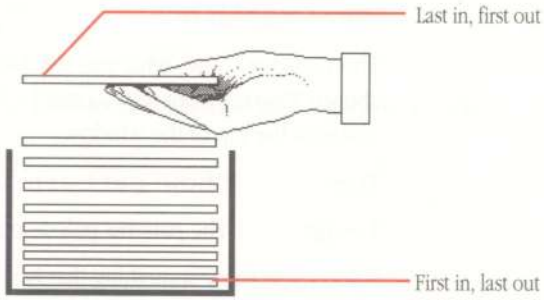
Pop Card

`Pop Card`

This command retrieves a card you've marked with the `Push Card` command (described later in this appendix). Once a card is retrieved, you can't get it back again using `Pop Card` unless you mark it again using `Push Card`.

Pushed cards are popped in last-in, first-out order.

Figure A-1 Popping order



Pressing Command–Up Arrow does the same thing as sending a `Pop Card` command.

- *Unfamiliar card popped:* Occasionally when you issue a `Pop Card` command, a card might appear that you didn't push. HyperTalk scripts can issue their own `Push Card` commands as you browse through stacks; your `Pop Card` commands make these pushed cards appear. Eventually, any card that you pushed will also appear; just keep popping.

Also see the previous command, `Push Card`.

Push Card

`Push Card`

This command lets you mark the card you're working on for quick retrieval later. Use this command to mark a card, wander through the stacks (perhaps to find a graphic you want to paste onto the marked card), and then retrieve the card again using the `Pop Card` command.

You can push any number of cards for later retrieval.

Pushing Command–Down Arrow does the same thing as sending a `Push Card` command.

Also see the previous command, `Pop Card`.

Show

```
Show tool window
Show pattern window
Show message
Show menubar
```

This message shows what you tell it to. It's as though you'd torn off a palette, or chosen Message from the Go menu. `Show menubar` makes the menu bar visible at the top of the window.

Type	`Show pattern window`
You get	The patterns palette on the screen

If you try to show something that isn't hidden, nothing happens.

Also see `Hide`, earlier in this appendix.

Show Cards

`Show cards`
`Show all cards`
`Show` *number of* `cards`

This message shows the cards in the current stack in rapid succession.

`Show cards` shows all cards in the current stack repeatedly until you click the mouse. `Show all cards` goes rapidly through the stack once, starting and ending with the current card. `Show` *number of* `cards` shows as many cards as you specify, starting with the card following the current card.

Type	`Show 4 cards`
You get	next four cards in stack briefly on screen

To stop `Show Cards` at any point, click the mouse. The card you're viewing when you click the mouse remains on the screen.

Time

`The Time`
`The Long Time`

This message puts the current time into the Message box in the form hh:mm AM or PM

Type	`The Time`
You get	2:57 PM (or whatever time it is, in this form)

Alternatively, Long time includes seconds:

Type	`The Long Time`
You get	2:57:23 PM

You have to start this message with the word "The."

HyperCard Disks

THIS APPENDIX IS A DIRECTORY TO THE STACKS AND OTHER FILES THAT COME with HyperCard. It tells you what files come with HyperCard, what disk each document is on, and what each document is for.

HyperCard and Stacks

The *HyperCard and Stacks* disk contains HyperCard, the HyperCard Stacks folder, plus a folder called More Stacks. The HyperCard Stacks folder holds the following stacks:

Address
Datebook
File Index
Home
HyperCalc
Phone
Quotations
Version 1.2.2 Release Notes

The More Stacks folder contains the following stacks:

Area Codes
Clip Art
Documents
Plots
Slide Show

HyperCard Help

The *HyperCard Help* disk contains a single folder, Help Stacks. The folder contains three stacks:

Help
Help Index
Help Samples

HyperCard Ideas

The *HyperCard Ideas* disk holds a single folder, Idea Stacks. The folder contains four stacks:

Art Ideas
Button Ideas
Card Ideas
Stack Ideas

About the provided HyperCard stacks

Here's a description of the stacks that come with HyperCard, and what you'd use them for:

Address	A name and address file. Keep all your important names and addresses here.
Area Codes	A listing of all the telephone area codes in Canada and the United States. You can look for an area code if you know the city (or nearby city), or you can find the city served by any area code.
Art Ideas	A collection of art you can use in your own documents. Use these to help create pictures and buttons.
Book Shelf	An example of a graphic table of contents.
Button Ideas	Library of working buttons. Cut and paste these to your own documents.
Card Ideas	Individual cards you might include in documents that you create. (A card is HyperCard's fundamental unit of information.)
Clip Art	Artwork you can use to dress up your own HyperCard documents.
Datebook	Monthly calendar, week-at-a-peek memo book, plus a things-to-do list. Use it to organize your daily chores and to keep track of important meetings.

Documents	A collection of document examples.
File Index	A set of file cards for whatever you need to file.
Help	On-line directions for using HyperCard. It provides hints and tips for using all of HyperCard's features.
Help Samples	Part of the on-line Help system.
Help Index	Part of the on-line Help system.
Home	A graphic directory of all the documents that come with HyperCard. Use it as your "base of operations." You must have Home for HyperCard to operate.
HyperCalc	A mini-spreadsheet.
Phone	A dialer for your telephone.
Plots	A demonstration of HyperCard's ability to plot information in different formats.
Quotations	A collection of famous quotations, designed to help you learn to use HyperCard.
Version 1.2.2 Release Notes	Information about this version of HyperCard.
Slide Show	A collection of clip art, digitally scanned into the Macintosh.
Stack Ideas	A collection of cards to use as templates for creating new stacks.

Δ Important For HyperCard to operate, you must have the Home stack on the same disk as HyperCard and in the same folder (or at the same level). You can remove all other stacks, but you must not remove the Home stack. Δ

A P P E N D I X C

Using HyperCard Without a Hard Disk

THIS APPENDIX DESCRIBES THE SPECIAL REQUIREMENTS AND CONSIDERATIONS for using HyperCard without a hard disk and explains how to make a 3.5-inch startup disk for HyperCard.

HyperCard and the stacks that come with it require a lot of disk space. When you use HyperCard without a hard disk, there's a limit to the number (and size) of stacks you can use.

The next section, "Creating a 3.5-Inch Startup Disk," explains how to create a special startup disk for use with HyperCard. This disk has the required system files and some of the more useful stacks that come with HyperCard.

You can use the HyperCard startup disk while you're going through the tutorials in this manual and continue using it as you become more experienced with HyperCard. Most of the time, you'll use HyperCard with this startup disk in one disk drive and the *HyperCard and Stacks* disk (which contains HyperCard) in the other. Therefore, you'll usually have access to all the stacks that come on the *HyperCard and Stacks* disk.

Creating a 3.5-inch startup disk

If you have a Macintosh with 800K disk drives (and no hard disk), you may have created startup disks for use with other Macintosh software. For an explanation of startup disks, see the *Macintosh System Software User's Guide* or your Macintosh owner's guide.

The following procedures explain how to create a special startup disk for use with HyperCard. Although you can use HyperCard with any startup disk, you need this HyperCard startup disk to go through the tutorials in Chapters 2 and 3 of this guide. This disk also has some stacks you'll find useful, even when you've become an experienced HyperCard user.

To create a HyperCard startup disk, you'll need the following disks:

- *Macintosh Utilities Disk 1* (this comes with your Macintosh)
- a blank, initialized disk (discussed in step 2, below)
- *HyperCard Ideas* (this comes with HyperCard)
- *Macintosh Printing Tools* (this comes with your Macintosh)

The following procedures explain how to create a HyperCard startup disk.

▶ First, create a System Folder on a blank, initialized disk you've named HyperCard Startup:

1. **Start your computer with the *Macintosh Utilities Disk 1* in the internal drive.**

2. **Insert a blank, initialized disk into the external drive.**

   For instructions on initializing 3.5-inch disks, see the *Macintosh System Software User's Guide* or your owner's guide.

   You can also insert a disk whose contents you no longer need. Be sure to select all the files on the disk and drag them to the Trash.

3. **Name the blank disk HyperCard Startup.**

   Click to select the blank disk's icon and type `HyperCard Startup`.

4. **Double-click the HyperCard Startup disk icon to open it.**

   You see the disk's empty directory window.

5. **Choose New Folder from the File menu.**

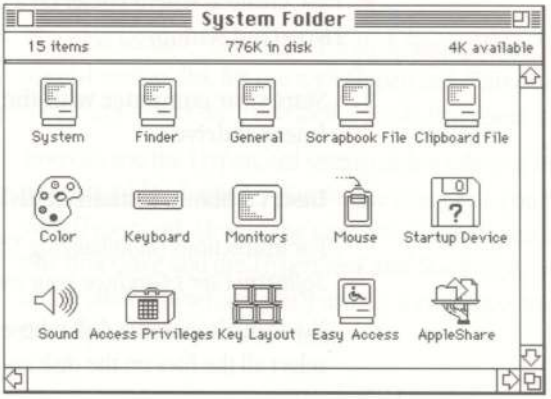
   A new, empty folder appears in the directory window of HyperCard Startup.

6. **Double-click the Utilities Disk 1 icon to open it.**

7. **Double-click the System Folder in the Utilities Disk 1 window.**

   You see the contents of the folder, as shown in Figure C-1.

Figure C-1 The contents of the System Folder on Utilities Disk 1



8. **Copy the System file by dragging its icon from the System Folder window of Utilities Disk 1 to the empty folder icon on your HyperCard Startup disk.**

   If you can't see the empty folder on HyperCard Startup, move the directory window of HyperCard Startup into view (by dragging from its title bar) so that you can see the empty folder as you drag the System file.

   If you don't know how to drag windows or files, see the *Macintosh System Software User's Guide* or your Macintosh owner's guide.

9. **Copy the Finder by dragging its icon from the System Folder window of Utilities Disk 1 to the empty folder icon on your HyperCard Startup disk.**

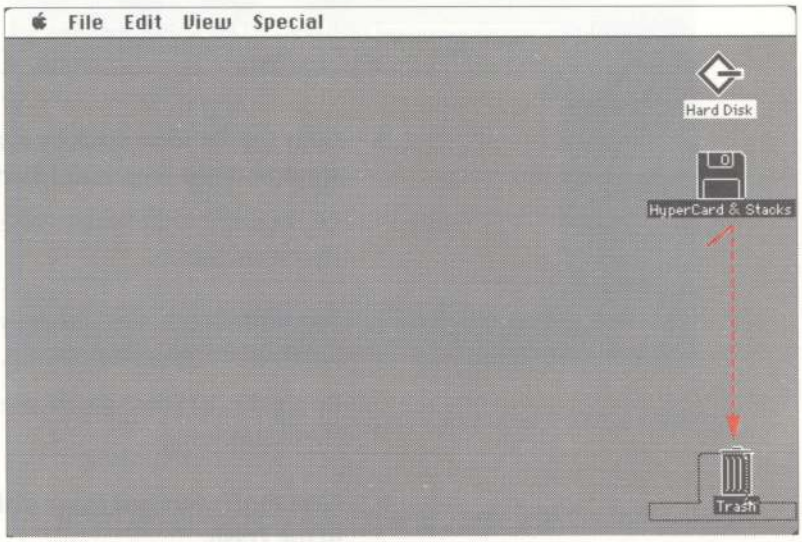
10. **Close the System Folder window of Utilities Disk 1 by clicking its close box.**

11. **Click anywhere in the directory window of Utilities Disk 1 to activate it, then close this window by clicking its close box.**

12. **Eject the *Utilities Disk 1* in the internal drive by dragging its icon to the Trash (as shown in Figure C-2).**

Dragging a disk to the Trash does not erase the disk; it ejects the disk from the drive. The dimmed icon of Utilities Disk 1 remains on the desktop.

Figure C-2 Ejecting a disk



13. **Name the new folder on HyperCard Startup "System Folder."**

    Click to select the folder and type `System Folder`.

▶ Copy the Art Ideas and Button Ideas stacks from the *HyperCard Ideas* disk onto the new HyperCard Startup disk:

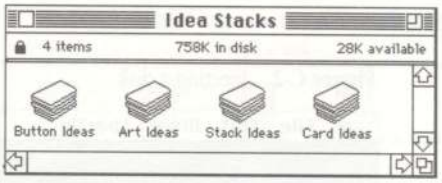
1. **Insert the *HyperCard Ideas* disk into the internal drive.**

2. **Double-click the HyperCard Ideas disk icon to open it.**

3. **Double-click the Idea Stacks folder icon on HyperCard Ideas.**

   You see the contents of the folder, as shown in Figure C-3.

Figure C-3 The contents of the Idea Stacks folder on the HyperCard Ideas disk



4. **Copy the Art Ideas stack by dragging its icon to the directory window of the HyperCard Startup disk.**

   Do not drag it to the System Folder—just drag it to the directory window of HyperCard Startup.

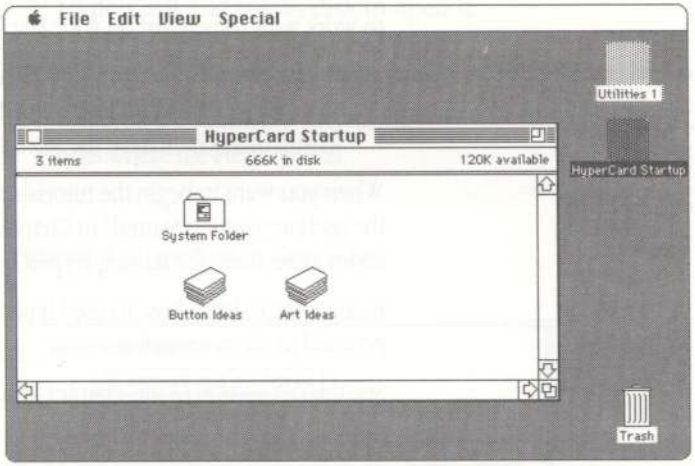
5. **Copy the Button Ideas stack by dragging its icon to the directory window of HyperCard Startup.**

   Do not drag it to the System Folder—just drag it to the directory window of HyperCard Startup.

6. **Eject the *HyperCard Ideas* disk in the internal drive by dragging it to the Trash.**

   On your screen, you should see the directory window of your HyperCard Startup disk, as shown in Figure C-4.

Figure C-4 The directory window of the HyperCard Startup disk



▶ If you have a printer, copy the appropriate printer resource onto your HyperCard Startup disk:

1. **Insert the disk *Macintosh Printing Tools* into the internal drive.**

2. **Double-click the Macintosh Printing Tools disk icon to open it.**

3. **Copy the appropriate printer resource for your printer by dragging its icon to the System Folder on HyperCard Startup.**

   If you can't see the System Folder on HyperCard Startup, move the directory window of the HyperCard Startup disk (by dragging from its title bar), so that you can see the System Folder as you drag the appropriate printer resource.

   If you have an ImageWriter, drag the ImageWriter printer resource to your System Folder.

   If you have a LaserWriter, drag the LaserWriter printer resource and Laser Prep to your System Folder.

   If you have a LaserWriter IIsc, drag the LaserWriter IIsc printer resource to your System Folder.

4. **Eject the *Macintosh Printing Tools* disk by dragging it to the Trash.**

5. **Choose Restart from the Special menu.**

Now your HyperCard Startup disk is complete. It contains everything you need to work with HyperCard on your Macintosh. Be sure to label it.

- *Be sure to make a copy of this HyperCard Startup disk* and store it with the original HyperCard disks. If something goes wrong with your HyperCard Startup disk, you'll have the stored backup copy in reserve.

When you want to begin the tutorials in Chapters 2 and 3 of this manual, go to the section "Getting Started" in Chapter 2 and begin by following the instructions there for starting HyperCard without a hard disk.

If you want to learn how to use HyperCard's on-line Help on your Macintosh, proceed to the next section.

See the last section of this chapter for tips on using HyperCard without a hard disk.

Using Help without a hard disk

Without a hard disk, using HyperCard's on-line Help system can be a tedious process (because of the disk swapping required), but it's not impossible. The Help stack is quite large—it takes up most of a 3.5-inch disk by itself. Therefore, to use this stack, you have to make one of your disk drives available for it.

When you're planning to use Help without a hard disk, it's a good idea to set aside a block of time just to explore the Help system. Once you're in the Help stack, you can move around in the stack without having to do much disk swapping (though you'll probably have to do some). However, when you try to leave Help—or move back and forth between Help and other stacks—you'll get a long succession of prompts to insert various disks in the drive. When this happens, it's best to turn off your computer and restart it.

1. **Start your computer with your HyperCard Startup disk in the internal drive and the *HyperCard and Stacks* disk in the other.**

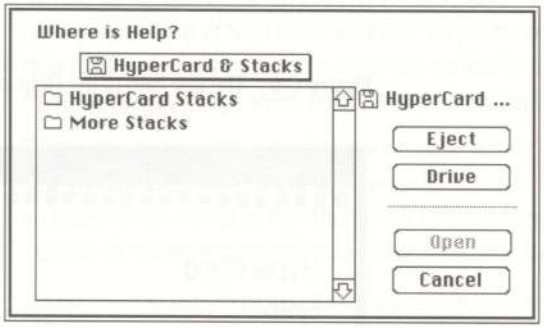
   If you left the directory window of your HyperCard Startup disk open when you last used the disk, this window will appear on your desktop now.

2. **When the Finder desktop appears, double-click the HyperCard and Stacks disk icon, then double-click the HyperCard icon on the HyperCard and Stacks disk to open it.**

3. **When you see your Home card, choose Help from the Go menu.**

   HyperCard displays the directory dialog box (shown in Figure C-5) and asks where the Help stack is.

Figure C-5 HyperCard looking for Help



4. **Click Drive until you see the name of your startup disk in the upper-right corner of the dialog box.**

   You should also see the name of your startup disk above the directory list at the left of the dialog box.

5. **Click Eject to eject the startup disk.**

6. **Insert the *HyperCard Help* disk into the drive.**

7. **Click Drive, if necessary, until you see the name of the HyperCard Help disk in the upper-right corner of the dialog box.**

   You should also see the name of the HyperCard Help disk above the directory list at the left of the dialog box.

8. **Open the Help Stacks folder in the directory dialog box.**

   Click, if necessary, to select the Help Stacks folder, and then click Open.

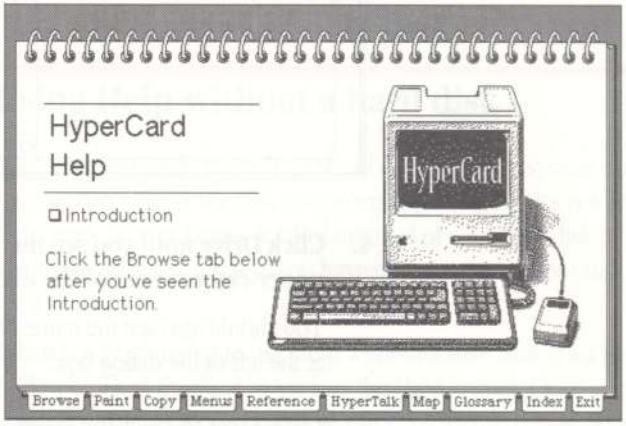
9. **Open the Help stack in the directory dialog box.**

   Click, if necessary, to select Help, and then click Open.

   After you do this, your Macintosh ejects the *HyperCard Help* disk and prompts you to insert the startup disk. Follow the instructions you see on the screen. (You might have to repeat this process once or twice. Just keep following the instructions on the screen.)

   Soon you see the first card of the Help stack, shown in Figure C-6.

Figure C-6 The first card of the Help stack



To begin navigating the Help stack, click the tabs along the bottom of the first card. (Each tab is actually a button.)

When you've finished exploring Help, it's best to turn off your computer, and then turn it back on again with your HyperCard Startup disk in the internal disk drive and the *HyperCard and Stacks* disk in the external drive. This way you can avoid the tedium of disk swapping as you continue your work with HyperCard.

Tips for using HyperCard without a hard disk

The following general tips may help you prepare for some of the limitations of using HyperCard without a hard disk:

- When you go through the tutorials in Chapters 2 and 3 of this manual, you need to have the Art Ideas and Button Ideas stacks on your startup disk. If you create your startup disk according to the instructions in the section "Creating a 3.5-inch Startup Disk" (earlier in this appendix), you'll have these stacks on your startup disk.
- To use stacks that come on the *HyperCard Ideas* disk, you can copy them onto your startup disk (if there's room). To get more space on the startup disk for the stacks you want to use, remove stacks that you don't need. (You can always copy them back onto your startup disk later.)
- When you try to open a stack that's on your startup disk, HyperCard displays the directory dialog box and asks you where the stack is. Use the techniques described in the *Macintosh Utilities User's Guide* (or your Macintosh owner's guide) for using the directory dialog box to locate files.
- If you want to use HyperCard's on-line Help system without a hard disk, you'll have to do some disk swapping. In the long run, you may find that it's more efficient to use this manual to get the information and help you need. The section "Using Help Without a Hard Disk," earlier in this appendix, describes a technique for exploring on-line Help with a minimum of disk swapping.
- When you're ready to create stacks of your own, it's a good idea to remove some of the stacks from your startup disk to make room for your new stacks on this disk. To create a new stack on your startup disk:
  1. Choose the New Stack command.
  2. In the New Stack dialog box, click the Drive button until you see the name of your startup disk in the upper-right corner.
  3. Type a name for your new stack and click New.

Glossary

Apple key: See **Command key.**

background: That which is shared by a number of cards; a card's basic template. The background is composed of the **background picture, background fields,** and **background buttons.**

background button: A button that appears on, and whose actions are the same for, all cards with the same background. Contrast with **card button.**

background field: A field whose size, position, and text attributes remain constant on all cards associated with a particular background, but whose text changes from card to card. Contrast with **card field.**

background picture: A picture that applies to a series of cards. You see the Background picture by choosing Background from the Edit menu. Contrast with **card picture.**

browse: To wander through HyperCard's stacks.

Browse tool: The tool you use to click buttons and to set the insertion point in fields.

button: Something that initiates a HyperCard action (making a connection, launching an application, starting a visual or sound effect, and so on) when you click it. See also **background button, card button.**

button action: That which happens when a button is pressed.

Button tool: The tool you use to create, change, and select buttons.

card: HyperCard's basic entity—one screenful of information.

card button: A button that appears on, and whose actions apply to, a single card. Contrast with **background button.**

card field: A field whose size, position, text attributes, and contents are limited to the card on which the field is created. Contrast with **background field.**

card picture: A picture that applies to a specific card. Contrast with **background picture.**

Command key: The key at the lower-left side of the keyboard that has a propeller-shaped symbol. On some keyboards this key also has an Apple symbol and might be called the *Apple key*.

current: (adj.) The one you're using now. For example, the current card is the one you can see on your screen.

800K disk drive: The device that holds a 3.5-inch, 800 kilobyte disk, retrieves information from it, and saves information to it. See also **3.5-inch disk.**

field: The place where you type regular (as opposed to Paint) text. Also, the tool you use to create a field. HyperCard has two kinds of fields—**card fields** and **background fields.**

Field tool: The tool you use to create, change, and select fields.

General tool: Any HyperCard tool that isn't a Paint tool. The General tools are Browse, Button, and Field.

Home card: A special card that acts as a pictorial index to stacks. Choose Home from the Go menu to get to Home (or press Command-H).

HyperTalk: HyperCard's built-in script language for HyperCard users.

keyboard equivalent key: A key you press together with the Command key to issue a menu command.

layer: The order of a button or field relative to other buttons or fields on the same card and background. The object created most recently is ordinarily the topmost object (that is on the front layer).

MacPaint document: Document created by the Macintosh MacPaint application, or any application that creates MacPaint-compatible graphics.

message: A command you send to HyperCard through a **script** or through the Message box. Some examples of HyperTalk messages are `Go`, `Show`, `Hide`, `Pop Card`, and `Push Card`.

MultiFinder: A first-generation multitasking operating system for Macintosh computers that makes it possible to have several applications open at the same time, including background applications that let you perform one task while the computer performs another.

on-line help: assistance you can get from an application program while it's running. In this user's guide, on-line help refers to HyperCard's disk-based Help system.

Paint text: Text you type using the Paint Text tool. Paint text can appear anywhere, while **regular text** must appear in a field created with the Field tool. When you finalize Paint text by clicking, it becomes part of a picture.

Paint tool: Any HyperCard tool you use to make pictures. Tools include Lasso, Brush, Spray, Eraser, Paint Text, and many others.

palette: The name for a **tear-off menu** when it's been torn off. A palette remains visible on the screen so you can use it without having to pull down the menu. HyperCard has two palettes—Tools and Patterns.

picture: Any graphic or part of a graphic created with a Paint tool. Also, an imported MacPaint document or part of a MacPaint document.

point: In printing, the measurement of the height of a text character; one point is about 1/72 of an inch. When you select a font, you can also select a point size, such as 10-point, 12-point, and so on.

power key: One of a number of keys on the Macintosh keyboard you can press to initiate a menu action when a Paint tool is active. Power keys are enabled when you choose Power Keys from the Options menu or check Power Keys in the User Preferences card in the Home stack.

Recent: A special dialog box that holds pictorial representations of the last 42 unique cards viewed. Choose Recent from the Go menu to get the dialog box.

regular text: Text you type inside a field. You use the Browse tool to set an insertion point in a field and then type. Regular text is editable and searchable, while **Paint text** is not.

script: A series of commands written in **HyperTalk** and associated with a particular object.

search path: The route the computer must follow to retrieve a file you ask for.

stack: A group of cards based on the same theme. A HyperCard document. See also **card.**

System file: Software your computer uses to perform its basic operations.

tear-off menu: A menu that you can convert to a **palette** by dragging the pointer beyond the menu's edge. HyperCard has two tear-off menus—Tools and Patterns.

text field: See **field.**

text property: A quality or attribute of a character's appearance. Properties include style, font, and size.

3.5-inch disk: A disk made of flexible plastic that's 3.5 inches in diameter and provides 800 kilobytes of information storage. The disk itself is flexible, but the jacket is made of hard plastic. In spite of the hard cover, 3.5-inch disks are often called floppy disks, as contrasted with hard disks.

tool: An implement you use to do work. HyperCard has tools for browsing through cards and stacks, creating text fields, editing text, making buttons, and creating and editing pictures.

user level: The setting on the User Preferences card in the Home stack that lets you use HyperCard's tools and abilities. Five user levels are available: Browsing, Typing, Painting, Authoring, and Scripting.

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HyperCard® 1.2.2 Quick Reference Card

User preference levels

Browsing	Short File and Edit menus, plus the Go menu. Use of the Browse tool.
Typing	Same as Browsing, plus the Text Arrows option and the ability to edit text in existing fields.
Painting	Same as Typing, but with full File and Edit menus and use of the Tools menu (plus Paint, Options, and Pattern menus when a Paint tool is selected). Use of all the Paint tools (but not Button and Field tools), plus Power Keys option.
Authoring	Same as Painting, plus the Objects menu. Use of Button and Field tools.
Scripting	Same as Authoring, plus the ability to type into the Message box while it's hidden (if the Blind Typing option is selected), and the ability to write and edit the scripts.

How HyperCard works: An overview

A Stack

A button that takes you to the next card

A button that takes you to the previous card

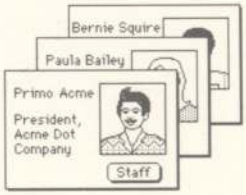
A button that takes you to another stack

Card field

Another Stack

Card picture

Card button



All this is on the background.

Background picture

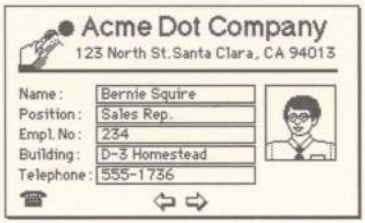
Background fields

Background buttons

This part changes from card to card.

Bernie Squire
Sales Rep.
234
D-3 Homestead
555-1736

On the screen you see a combination of the background and the part unique to a given card.



Browsing from the keyboard

Destination	Keyboard shortcut
Help	Command-?
Home	Command-H
First card in stack	Command-1 or Command-Left Arrow
Previous card in stack	Command-2 or Left Arrow*
Next card in stack	Command-3 or Right Arrow*
Last card in stack	Command-4 or Command-Right Arrow
Retrace through cards viewed	Tilde (~), Esc, or Down Arrow*
Forward through retraced cards	Up Arrow*
Record of cards recently seen	Command-R
Select Browse tool	Command-Tab
Store current card's location for quick return	Command-Down Arrow (Many locations can be stored.)
Return to stored location (last in–first out order)	Command-Up Arrow
Next field on card	Tab
Previous field on card	Shift-Tab

*If you've selected the Text Arrows option on the User Preferences card, hold down the Option key while you press this arrow key.

Text editing

Function	Keyboard shortcut
Font, next in system	Command-Shift->
Font, previous in system	Command-Shift-<
Text Style dialog box	Command-T
Space, less between lines	Command-Option-Shift-<
Space, more between lines	Command-Option-Shift->
Text size, larger	Command->
Text size, smaller	Command-<

Power keys available when using Paint tools

Command	Key	Menu
Black pattern	B	Patterns
Darken	D	Paint
Draw Centered (toggle)	C	Options
Draw Multiple (toggle)	M	Options
Fill	F	Paint
Flip Horizontal	H	Paint
Flip Vertical	V	Paint
Grid (toggle)	G	Options
Invert	I	Paint
Lighten	L	Paint
Line size	1–4, 6, 8	Options
Opaque	O	Paint
Pickup	P	Paint
Revert	R	Paint
Select	S	Paint
Select All	A	Paint
Trace Edges	E	Paint
Transparent	T	Paint
White pattern	W	Patterns
Rotate 90° Left	[	Paint
Rotate 90° Right	]	Paint

Keyboard equivalents by command

Command	Keys	Menu
Back	Command-Tilde (~)	Go
Background	Command-B	Edit
Bring Closer	Command-plus (+)	Objects
Copy	Command-C	Edit
Cut	Command-X	Edit
Find	Command-F	Go
First	Command-1	Go
Help	Command-?	Go
Home	Command-H	Go
Keep	Command-K	Paint
Last	Command-4	Go
Message	Command-M	Go
New Card	Command-N	Edit
Next	Command-3	Go
Open Stack	Command-O	File
Paste	Command-V	Edit
Prev	Command-2	Go
Print Card	Command-P	File
Quit HyperCard	Command-Q	File
Recent	Command-R	Go
Select	Command-S	Paint
Select All	Command-A	Paint
Send Farther	Command-minus (-)	Objects
Text Style	Command-T	Edit
Undo	Command-Z	Edit

Miscellaneous keyboard shortcuts

Key or combination	Effect
Command-Option*	Show all buttons (Browse or Button tool selected)
Command-Shift-Option*	Show all fields (Field tool selected)
Command-Backspace	Delete current card
Command-Period	Cancel current action (like printing)
Command-Space bar	Hide and show menu bar
Command-Tab	Select Browse tool
Command-Tab-Tab	Select Button tool
Command-Tab-Tab-Tab	Select Field tool
Command-Tilde (~)	Go to most recent card displayed (Paint tool selected)
Command-Shift-V	Paste miniature card image (with card on Clipboard)
	Paste a field along with its text
Command-Down Arrow	Store current card's location for quick return (you can have many locations stored)
Command-Up Arrow	Return to stored location (last in–first out order)
Option-D	Show card picture (with Paint tool)
Option-O	Show Opaque areas (with Paint tool)
Option-Tab	Toggle Tools palette

*Darker outlines indicate background fields or buttons.

(continued)

Key or combination	Effect
Tilde (~)	Same as Back command (General tool selected)
	Undo most recent action (Paint tool selected)
Down Arrow	Same as Back command (any tool selected)
Up Arrow	Come forward through reviewed cards
Tab	Toggle Patterns palette (Paint tool selected)
	Advance insertion point to next background field (Browse tool selected)
Command-Option-C	Edit script of current card
Command-Option-B	Edit script of current background
Command-Option-S	Edit script of current stack

Holding down the Command key before and as you drag through the File menu shows the full File menu, even if Browsing or Typing is selected on the User Preferences card in the Home stack and/or in a stack's Protect Stack dialog box.

Effects of modified dragging

Tool	With Command key	With Option key
Button	Create button	Copy button
Field	Create field	Copy field
Selection	Select tightly	Copy selection
Lasso	Lasso everything	Copy selection
Line	No effect	Draw with pattern
Eraser	Erase white	No effect
Pencil	Enter/leave FatBits	No effect
Rectangle	No effect	Patterned border
Curve	No effect	Patterned border
Brush	Erase what you paint over	No effect
Spray	Erase what you spray over	No effect
Rounded Rectangle	No effect	Patterned border
Polygon	No effect	Draw with pattern
Oval	No effect	Patterned border
Regular Polygon	No effect	Patterned border

Tool	With Shift key
Button	Move button horizontally or vertically
Field	Move field horizontally or vertically
Selection	Move selection horizontally or vertically
Lasso	Move selection horizontally or vertically
Line	Draw at 15° angles
Eraser	Erase straight horizontally or vertically
Pencil	Draw a straight horizontal or vertical line
Rectangle	Draw a square
Curve	No effect
Brush	Paint straight horizontally or vertically
Spray	Spray straight horizontally or vertically
Rounded Rectangle	Draw a square with rounded corners
Polygon	Draw at 15° angles
Oval	Draw a circle
Regular Polygon	Rotate in 15° increments

THE APPLE PUBLISHING SYSTEM

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Tuck end flap inside back cover when using manual.

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